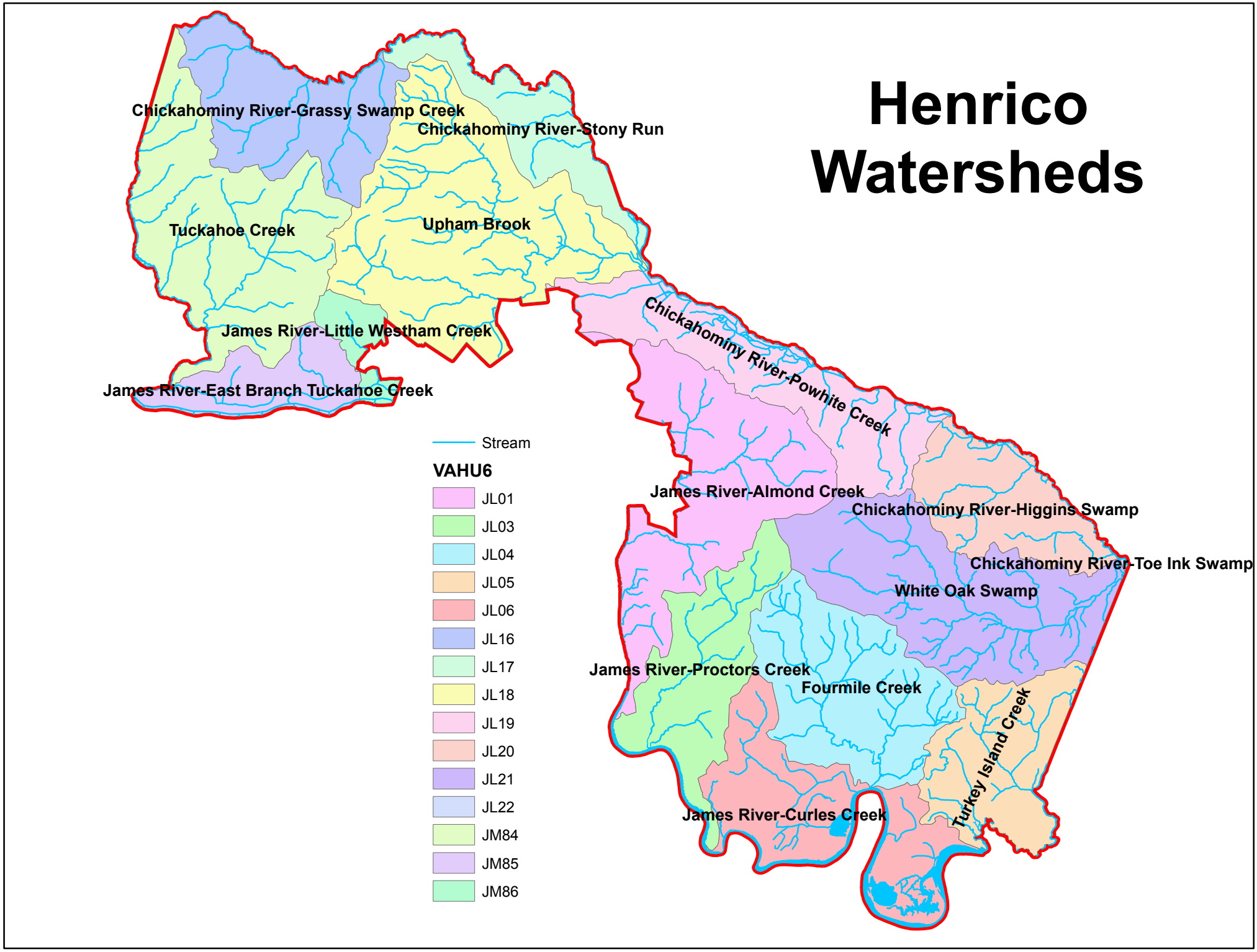
Attachment 1 - Jurisdictional Map


Henrico Watersheds
Chickahominy River-Grassy Swamp Creek
Chickahominy River-Stony Run
Tuckahoe Creek
Upham Brook
James River-Little Westham Creek
James River-East Branch Tuckahoe Creek
Chickahominy River-Powhite Creek
James River-Almond Creek
Chickahominy River-Higgins Swamp
Chickahominy River-Toe Ink Swamp
White Oak Swamp
James River-Proctors Creek
Fourmile Creek
Turkey Island Creek
James River-Curles Creek
Stream
VAHU6
JL01
JL03
JL04
JL05
JL06
JL16
JL17
JL18
JL19
JL20
JL21
JL22
JM84
JM85
JM86

Attachment 2 - Site Inspection Report

HENRICO COUNTY
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) INSPECTION

HENRICO
DEPARTMENT OF PUBLIC WORKS
10431 WOODMAN RD
GLEN ALLEN, VA 23060

FINAL
JULY 2010

U.S. Environmental Protection Agency, Region III
Water Protection Division
Office of NPDES Enforcement (3WP42)
1650 Arch Street
Philadelphia, PA 19103

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EXECUTIVE SUMMARY

Municipal Separate Storm Sewer System (MS4)
Inspection Report
Henrico County, Virginia

From April 19 through 20, 2010, a compliance inspection team comprising staff from the U.S. Environmental Protection Agency (EPA) Region 3, Virginia Department of Conservation and Recreation (DCR), EPA's contractor, Eastern Research Group, Inc. (ERG), and ERG's subcontractor, PG Environmental, LLC, inspected the municipal separate storm sewer system (MS4) program of the County of Henrico, Virginia. Discharges from the County's MS4 are regulated by Virginia Pollution Discharge Elimination System (VPDES) Permit Number VA0088617, effective March 18, 2003. The purpose of this inspection was to evaluate compliance with the County's permit VA0088617, which is included in Attachment 1. The inspection focused specifically on the following sections of the permit in relation to the County's MS4 program: (1) Structural and Source Control Measures; (2) Unauthorized Discharges and Improper Disposal; (3) Runoff from Industrial and Commercial Facilities; and (4) Runoff from Construction Sites.

Based on the information obtained and reviewed, the EPA's compliance inspection team made several observations concerning the County's MS4 program related to the specific permit requirements evaluated. Table 1 summarizes the permit requirements and the observations noted by the inspection team.

Table 1. Observations Identified During the Henrico Inspection (4/19/10 – 4/20/10)

Virginia Permit Number VA0088617 Requirement	Observations	
I.A.1.a – Structural and Source Control Measures	No observations for this element of the permit.	
I.A.1.b – Unauthorized Discharges and Improper Disposal	Observation 1.	Henrico County is unable to inspect all stormwater inlets and outfalls.
	Observation 2.	Henrico County does not document follow up actions taken after potential illicit discharges are found.
	Observation 3.	Henrico County does not confirm the location of outfalls that the County cannot find visually.

Table 1. Observations Identified During the Henrico Inspection (4/19/10 – 4/20/10)

Virginia Permit Number VA0088617 Requirement	Observations	
I.A.1.c – Runoff from Industrial and Commercial Facilities	Observation 4.	Henrico County does not schedule inspections as frequently as needed to monitor and control pollutants from municipal landfills.
	Observation 5.	Henrico County has not established legal authority to inspect private industrial and commercial facilities for stormwater purposes.
	Observation 6.	Henrico County is not completing all industrial and commercial facility inspections that the County has identified as necessary.
	Observation 7.	Henrico County is not adequately identifying all facilities contributing substantial pollutant loadings.
	Observation 8.	The Henrico County Industrial Inspector does not conduct the thorough inspections needed to monitor and control pollutants from industrial facilities.
	Observation 9.	Henrico County is not adequately minimizing pollutant discharges from County industrial facilities.
I.A.1.d – Runoff from Construction Sites	Observation 10.	Henrico County Environmental inspectors do not assess non-sediment, construction site pollutant sources.
	Observation 11.	Henrico County's Erosion and Sediment Control inspection documentation was not in accordance with the Henrico County Erosion and Sediment Control Ordinance.
	Observation 12.	Henrico County has not conducted a formal education and training class for construction site operators during its current MS4 permit term.

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I. INTRODUCTION

From April 19 through 20, 2010, a compliance inspection team comprising staff from the U.S. Environmental Protection Agency (EPA) Region 3, Virginia Department of Conservation and Recreation (DCR), EPA's contractor, Eastern Research Group, Inc. (ERG), and ERG's subcontractor, PG Environmental, LLC, (hereafter, collectively, EPA inspection team) inspected the municipal separate storm sewer system (MS4) program of the County of Henrico, Virginia (hereafter, the County, Henrico, or the County of Henrico). Discharges from the County's MS4 are regulated by Virginia Pollution Discharge Elimination System (VPDES) Permit Number VA0088617, effective March 18, 2003. The purpose of this inspection was to evaluate compliance with the County's Virginia Pollution Discharge Elimination System (VPDES) Permit Number VA0088617 (hereafter, the permit), which is included in Attachment 1. The following personnel participated in this inspection:

Department of Public Works [1]:	Mr. Chris Winstead, Assistant Director Mr. Jeff Perry, Engineering & Environmental Services Division Manager Mr. Scott Jackson, Environmental Engineer Mr. Mike Hackett, Senior Environmental Inspector Ms. Olivia Hall, Environmental Inspector Mr. Keith White, Senior Engineer Mr. John Fowler, Environmental Engineer
Department of Fire:	Butch Jones, Deputy Fire Marshal
County Attorney's Office:	Ben Thorp
EPA Representatives:	Mr. Andrew Dinsmore, EPA Region 3, Stormwater Team Leader Ms. Allison Graham, EPA Region 3
Virginia DCR Representative:	Mr. Doug Fritz, MS4 Program Manager
EPA Contractors:	Mr. Mark Briggs, ERG Ms. Kavya Kasturi, ERG Mr. Scott Coulson, PG Environmental, LLC

The inspection focused specifically on the following sections of the permit in relation to the County's MS4 program: (1) Structural and Source Control Measures; (2) Unauthorized Discharges and Improper Disposal; (3) Runoff from Industrial and Commercial Facilities; and (4) Runoff from Construction Sites.

Section II of this report presents background information on Henrico's MS4 program. Section III presents information obtained during the inspection related to the specific permit requirements evaluated.

II. HENRICO BACKGROUND

The County of Henrico is located in central Virginia and is bordered by the James River, Tuckahoe Creek, the Chickahominy River, the City of Richmond and the Counties of New Kent and Charles City. As of 2009, the County's population was estimated as 296,415. The County has a total area of 244 square miles.

[1] A copy of sign-sheets containing the names of all County participants in the inspection is included as Attachment 2.

Henrico's MS4 program is administered by the following departments:

- Department of Public Works;
- Department of Fire;
- Department of Public Utilities;
- Department of Building Construction and Inspections;
- Department of General Services; and
- Department of Planning.

III. INFORMATION OBTAINED DURING THE INPSECTION REGARDING PERMIT REQUIREMENTS

The EPA inspection team obtained information to evaluate the County of Henrico's compliance with the requirements of the permit, under which the County's MS4 system is covered. The permit, included in Attachment 1, has an effective date of 18 March 2003 and an expiration date of 17 March 2008. The permit has not been renewed and it still active. The EPA inspection team evaluated four permit components; observations regarding the County's implementation of each permit component are presented in the following four subsections. Attachment 3, the Exhibit Log, contains all referenced exhibits, and Attachment 4, the Photograph Log, contains all referenced photographs (additional photographs are available in the inspection record).

III.A. Requirement I.A.1.a – Structural and Source Control Measures

Part I.A.1.a of the permit contains requirements for the County to utilize structural and source control measures to reduce pollutants in storm water runoff from commercial and residential areas, which the County addresses through a program herein referred to as its Structural and Source Control Measures Program. Within this program area, the inspection was focused on Parts I.A.1.a(1), (2), and (4) of the permit. State laws such as the Virginia Stormwater Management Law (§ 10-603 et seq. of the Virginia Code), the Virginia Stormwater Management Regulations (4VAC3-20 et seq.), and the Chesapeake Bay Preservation Act (§ 10.1-2100 et seq. of the Virginia Code) provide the underlying regulatory framework for the County's Structural and Source Control Measures Program. The County has promulgated the Henrico County Environmental Ordinance (County Code Chapter 10, *Environment)* which pertains to development and redevelopment in the county. The Henrico County Environmental Ordinance is relevant to both the active construction and post-construction phases of development. The Henrico County Environmental Ordinance, Article VII., *Stormwater Management*, Section 10-219, states "all stormwater management facilities, including Best Management Practices (BMPs) for water quality and quantity management, shall comply with the current edition of the Stormwater Guidelines Manual maintained by the county engineer."

The County's current Stormwater Guidelines Manual, the *Henrico County Environmental Program Manual*, dated August 2001, addresses a wide range of the County's water quality and quantity programs. As it applies to the County's Structural and Source Control Measures Program, the manual covers topics such as plan submission, design criteria for stormwater management best management practices (SWM-BMPs), and water quality compliance calculations for meeting the Chesapeake Bay Preservation Area (CBPA) Designation and Management Regulations (9VAC10-20 et seq.). For calculation of the required pollutant load reduction the County uses the Simple Method, a procedure which is described in the *Chesapeake Bay Local Assistance Manual*. The *Henrico County Environmental Program Manual* states that the County's average land cover condition is assumed to be 16 percent impervious, and phosphorus is

considered the keystone pollutant[2]. As indicated in the *Henrico County Environmental Program Manual* and explained by County staff, the application of the CBPA stormwater quality criteria was expanded to all areas within the County on June 23, 1993. Specifically, the stormwater quality criteria and resulting pollutant load reductions are applicable to all projects within the County that result in 2,500 square feet or more of land disturbance.

The primary staff responsible for the County's Structural and Source Control Measures Program include representatives of the Engineering and Environmental Services Division, an organizational division within the County Department of Public Works. The staff includes five Environmental Plan Review Engineers who review plans for compliance with requirements pertaining to SWM-BMPs in addition to other requirements such as drainage, road design, and landscaping. One Environmental Engineer is tasked with inspecting SWM-BMPs at construction sites during two phases of active construction: rough grading and final conformance. The County utilizes maintenance agreements in which the owner is responsible for both inspection and maintenance of SWM-BMPs located on private property.

For SWM-BMPs located within residential subdivisions where the County collected maintenance fees prior to recordation, the County provides long term maintenance (e.g., dredging) of extended detention basins and shallow marsh basins. Short term maintenance (e.g., mowing, trash collection) are provided by the developer or homeowner's association (HOA). For SWM-BMPs located in plan of development (POD) and certain subdivisions that did not contribute maintenance fees prior to recordation, maintenance is the responsibility of the landowner or HOA. Inspection and maintenance of County-owned SWM-BMPs is the responsibility of the individual County department where the facility is located.

On the basis of limited records review and an office discussion with County staff members, no inconsistencies between the County's Structural and Source Control Measures Program and the permit were identified.

III.B. Requirement I.A.1.b – Unauthorized Discharges and Improper Disposal

Part I.A.1.b of the permit contains requirements for unauthorized non-stormwater discharges and improper disposal, which the County addresses through a program referred to as its illicit discharge program, detailed in Section II of the Henrico County *Storm Water Management Master Plan*, revised March 24, 2010 (hereafter, County Storm Water Management Master Plan). The Henrico County Environmental Ordinance, Article VII, *Stormwater Management* (hereafter, Henrico County Storm Water Management Ordinance) also prohibits illicit discharges to the MS4 (see Exhibit 1, SW Ordinance). In 2007, the County hired a new staff member to implement this program as well as the program to control runoff from industrial and commercial facilities (see section III.C. of this report). The new staff member was hired based on findings from an MS4 audit conducted in July 2005 by Science Applications International Corporation (SAIC) at the request of EPA (hereafter, the July 2005 MS4 audit). Within this program area, the inspection was focused on dry weather screening inspections and follow up and enforcement.

III.B.1. Dry Weather Screening Inspections

Henrico County conducts dry weather screening inspections to ensure any illicit discharges are detected and resolved. In 2007, the County Dry Weather Screening Inspector and additional staff inspected outfalls and storm sewer inlets. Due to limited resources, at the time of the inspection the County inspected only outfalls.

[2] The *Henrico County Environmental Program Manual* defines "keystone pollutant" as "a pollutant that is an indicator of many different pollutants and not necessarily the target pollutant."

The County has identified industrial and commercial areas with a high likelihood of illicit connections to the storm sewer. The County targeted food preparation facility areas (where discharges of fats, oils, and grease were possible) in 2009, and will investigate automobile maintenance facility areas in 2010 and laundry facility areas in 2011. County staff indicated the latter two categories were chosen based on the July 2005 MS4 audit.

The County Dry Weather Screening Inspector indicated he and supporting staff, including two interns and County mosquito control staff members, inspected 1,200 inlets and outfalls in 2007, 400 outfalls in 2008, and 150 outfalls in 2009. The inspector stated that the 2009 inspections were limited due to wet weather. The County requires five to seven days of dry weather prior to conducting dry weather screening inspections. The inspector indicated that the mosquito control staff informs him of potential issues if noted during their routine activities.

County dry weather screening inspectors are trained on the job and given the Field Screening Standard Operating Procedure to review (Exhibit 2, Field Screening SOP). Inspectors do not attend a formal training. Additionally, new staff within the Department of Public Works Environmental Services Division shadow staff to gain familiarity with the Division's programs.

Prior to beginning the day's inspections, the County Dry Weather Screening Inspector prints out maps, including storm sewers, of the areas to be inspected. The inspector brings the maps, blank inspection reports, a manhole puller, a chlorine test kit, and a camera on the inspections. The map is used to verify the number of outfalls and manholes. If a problem is noted, the outfall is circled on the map and an inspection report is completed (Exhibit 3, Blank Outfall Inspection Report). If no problem is found, a note is made in the tracking database indicating the outfall has been inspected.

During the inspection, the County Dry Weather Screening Inspector checks for standing water or flow. If flow is present, the inspector collects a sample and tests on site for chlorine and pH. The inspector stated that the presence of chlorine indicates that the flow is potable water. If the pH is less than 6 or greater than 8, this would indicate a problem; however, the inspector stated this condition had never been found. The inspector also notes the presence of an oily sheen, odor, or color in the water.

The County uses an Access database to track outfall inspections. This database is also used to track industrial inspections and spills. After the inspections are complete, the County Dry Weather Screening Inspector transfers data from the paper inspection reports into the database. The database fields correspond with the outfall inspection report used in 2007. Since then, the outfall inspection report has been updated, however, the database has not been updated accordingly. For example, the updated inspection report includes a question asking for the color of the flow present; however no corresponding field is present in the database. Additionally, questions no longer included in the inspection report have not been removed from the database. For example, the database still includes a "true or false" field titled "Fluoride Positive" but the question has been removed from the updated inspection report. Also, while the Inspector indicated that tests are conducted for chlorine and pH, there are no designated areas in the inspection report or the database to record this data. See the "Field Title" column of Exhibit 4, Outfall Inspection Database Entries for all database fields. This exhibit contains the database field names and the corresponding entries for four selected records from the County's outfall inspection database.

Observation 1. Henrico County is unable to inspect all stormwater inlets and outfalls.

Part I.B.5 of the permit requires that Henrico County "provide adequate finances, staff, equipment and support capabilities to implement all parts of the Storm Water Management Program required by Part I.A of this permit." However, based on discussions with Henrico County's dry weather screening inspector, the inspector is unable to inspect all stormwater inlets and outfalls. The inspector indicated that in addition to illicit discharge inspections, he is responsible for industrial inspections, complaint response, and spill

response. In 2007, Henrico County inspected inlets and outfalls; however, the inspector stated that Henrico County has discontinued the inlet inspections and currently only inspects a limited number of outfalls annually. The number of inspections conducted by the county decreased from 1,200 in 2007 to 400 in 2008 and 150 in 2009. The Henrico County inspector stated that limited man-power prevents additional outfall inspections from occurring each year. The need for additional resources was previously mentioned in the July 2005 MS4 audit.

III.B.2. Dry Weather Screening Follow Up and Enforcement

Inspectors have been instructed to investigate any problems at the time of the inspection. If flow is present, the inspector reviews the map and locates storm sewer inlets upstream of the outfall. The inspector traces the flow back to its origin. If the flow appears to be coming from an industrial facility, the inspector will meet with the facility manager at the time of the inspection to determine the cause of the flow. This meeting may trigger an industrial inspection at the site (see section III.C. of this report). The County Dry Weather Screening Inspector signs the outfall inspection report to indicate that the investigation was closed.

The County Dry Weather Screening Inspector also notes whether any repair or cleaning is needed for the outfall. The database contains a specific column to indicate whether cleaning is needed. Once a year, the County Dry Weather Screening Inspector generates a list of all the outfalls for which the "NeedsCleaning" field is marked "TRUE" and emails the list to the Road Maintenance Division. Road Maintenance staff enters the cleaning requests into their work order system and complete the requests as time is available. Road Maintenance staff informs the inspector as the requests are completed and the inspector then updates the database by changing the "NeedsCleaning" entry to "FALSE". There are no other fields in the database specifically for recording any tracking information regarding the submittal and completion of the cleaning request.

Observation 2. Henrico County does not document follow up actions taken after potential illicit discharges are found.

Part I.A.1.b.(3) of the permit requires the County to "conduct on-site investigation of potential sources of unauthorized non-storm water discharges." The County cannot confirm that this requirement has been met without documenting the investigation. In regards to this permit requirement, Section II.3 of the County Storm Water Management Master Plan specifies that the action taken to address each potential illicit discharge is documented. Upon review of the outfall inspection database, the EPA inspection team noted that a potential illicit discharge was identified during an inspection of SWO-0058 on 1/4/07 (see column "Entry Example 1" in Exhibit 4, Outfall Inspection Database Entries). The inspector stated that he investigated and determined that the source was not an illicit discharge; however, no documentation was present in the database or inspection report (Exhibit 5, SWO-0058 Inspection Report) that detailed the actions he took. After the EPA inspection team inquired about the documentation, the inspector added a note to the file, dated 4/26/10, stating the actions taken to close the file (Exhibit 6, SWO-0058 Follow Up). Additionally, the EPA inspection team found that the database record for an inspection of SWO-0101 on 1/18/07 stated that the water in the manhole needed investigation (see column "Entry Example 2" in Exhibit 4, Outfall Inspection Database Entries). No documentation was present in the database or inspection report (Exhibit 7, SWO-0101 Inspection Report) that detailed the actions taken. The inspection was completed by another inspector and the current inspector could not describe or provide documentation of the actions taken. The EPA inspection team also inquired about the database record for an inspection of SWO-0106 on 1/18/07 (see column "Entry Example 3" in Exhibit 4, Outfall Inspection Database Entries) which stated that "Orange color is present, odor is bad." The inspector stated that iron bacteria was present in this outfall which was identified by breaking up the oily sheen and noting that it did not come back together. However, no documentation of this finding is present in the database. Additionally, no inspection

report was completed for SWO-0106. The observations were noted on the inspection report for SWO-0101 (Exhibit 7, SWO-0101 Inspection Report). The lack of documentation was previously mentioned in the July 2005 MS4 audit.

Additionally, The County's industrial and outfall inspection database is incomplete and inconsistent with paper records. The database record for the inspection of SWO-0058 includes comments not present on the paper record (see column "Entry Example 1" in Exhibit 4, Outfall Inspection Database Entries and Exhibit 5, SWO-0058 Inspection Report). Also, the column entitled "Closed" in the database, which the inspector explained was used to indicate that illicit discharges and maintenance issues had been resolved, had not been completed. The database does not contain a column to indicate the date of closure or actions taken to close an issue.

Observation 3. Henrico County does not confirm the location of outfalls that the County cannot find visually.

The inspection database indicates that SWO-1454 was inspected on 1/24/08 and 5/21/09 (see columns "Entry Example 4" and "Entry Example 5" in Exhibit 4, Outfall Inspection Database Entries). In the first inspection record, it was noted that the pipe could not be seen due to dirt/debris. Similarly, in the second inspection record it was noted that the inspector "could not find outfall" and that it was "possibly buried." At the time of EPA's inspection, the inspector was not aware of the status of this outfall and stated he would follow up by speaking with Road Maintenance. On 4/23/10, the inspector indicated that he had spoken with Road Maintenance and learned that the outfall was not buried, but located in a different place than he had thought. Part I.A.1.b.(2) of the permit requires the permittee to "continue the implementation of current field screening procedures for identifying unauthorized non-storm water discharges." The County cannot satisfy this requirement without confirming the location of each outfall visually or with Road Maintenance.

III.C. Requirement I.A.1.c – Runoff from Industrial and Commercial Facilities

Part I.A.1.c of the Permit contains requirements to monitor and control pollutants in storm water discharges from certain industrial and commercial facilities; the County's program to address this permit component is described in section III of the County Storm Water Management Master Plan. In 2007, the County hired a new staff member to implement this program as well as the County Illicit Discharge program (see section III.B. of this report). Within this program area, the inspection was focused on industrial and commercial facility identification and prioritization, inspections, and County industrial facility stormwater management.

III.C.1. Identification and Prioritization of Industrial and Commercial Facility Inspections

The County has identified 42 industrial and commercial facilities to inspect (Exhibit 8, Facility List); the County updates the list annually. The facilities include municipal landfills; hazardous waste treatment, storage, and disposal facilities; facilities subject to Section 313 of the Emergency Planning and Community Right to Know Act; and other facilities determined to be contributing substantial pollutant loadings. The County identifies other facilities determined to be contributing substantial pollutant loadings as those facilities that are covered under 9VAC25-151, *General VPDES Permit for Discharges of Storm Water Associated with Industrial Activity*, adopted April 27, 2009 (hereafter, Industrial General Permit). A list of these facilities is obtained from the State annually.

The inspection frequency varies by site and can be every year (11 facilities), every three years (7 facilities) or every five years (24 facilities). Generally, most facilities draining to the MS4 require annual inspection and each such facility is assigned a quarter during which it will be inspected. Facilities draining to the MS4

which have received "Non-Exposure Certification" from the State are inspected every three years. Municipal landfills and facilities that do not drain to the MS4 are inspected every five years.

Facilities are added to the list of facilities to be inspected annually if they are associated with a problem identified during dry weather screening inspections. These facilities are inspected annually, but are removed from the list after three problem-free inspections.

The County has also identified automobile maintenance facilities and laundries as priority categories for inspection. County staff indicated the categories were chosen based on the July 2005 MS4 audit. Automotive repair facilities will be identified and inspected in 2010, laundries in 2011.

Observation 4. Henrico County does not schedule inspections as frequently as needed to monitor and control pollutants from municipal landfills.

Part I.A.1.c of the permit requires that Henrico County have a program to monitor and control pollutants in storm water discharges from municipal landfills. However, the County is not scheduling inspections as frequently as needed to meet this requirement. Henrico County's list of industrial facilities indicates that two municipal landfills drain to the County's MS4; however, the County indicates that these facilities only require inspections once every five years (Exhibit 8, Facility List). Records indicate that both landfills were last inspected in 2007 and are not due for reinspection until 2012 (Exhibit 9, Springfield Landfill Inspection Report and Exhibit 10, Charles City Road Public Use Area Inspection Report). A similar issue regarding the lack annual inspections at these municipal landfills was previously identified in the July 2005 MS4 audit.

III.C.2. Industrial and Commercial Facility Inspections

County staff stated that the County does not have legal authority to inspect industrial and commercial facilities for stormwater purposes without witnessing a problem that impacts the MS4[3]. Therefore, the County has developed a relationship with the industrial and commercial facilities allowing the County to inspect the facilities on a voluntary basis.

To prepare for an industrial inspection, the County Industrial Inspector typically notifies the facility one month in advance of the upcoming inspection. During this time, he prints out area maps, reviews the past inspection reports for the facility and reviews the facility's stormwater pollution prevention plan (SWPPP) that is required by their coverage under the Industrial General Permit.

The County Industrial Inspector completes an industrial inspection report during each inspection. Once the inspector arrives on site, he meets with the facility manager or responsible stormwater management personnel. The inspection begins in the facility office where the inspector confirms general facility information and then reviews the SWPPP with the facility personnel, focusing on areas that impact the MS4 such as housekeeping, SWM-BMPs, and spill prevention and control. The inspector then tours the outside of the facility to identify any stormwater issues. If the inspector identifies problems impacting the MS4, he notes the problem in the inspection report and provides a timeframe for resolving the issue. For major issues, the inspector may issue a Notice of Violation.

[3] Note that Section III of the County Storm Water Management Master Plan states that "the legal authority to conduct inspections and require compliance is based on the fact they drain to the County's storm sewer system for which the County holds a NPDES permit or the industry has an SIC code that is required to have a NPDES Industrial Permit with a Pollution Prevention Plan." This contradicts statements made by County staff during the inspection. County staff stated they do not have legal authority to enforce a Storm Water Pollution Prevention Plan.

After the inspection, the County Industrial Inspector types up his handwritten inspection report, including recommended and required actions, and attaches a certification sheet that must be signed by the facility and the County inspector. The facility is then given a copy of the report. An example of a completed inspection report is provided as Exhibit 9, Springfield Landfill Inspection Report.

Observation 5. Henrico County has not established legal authority to inspect private industrial and commercial facilities for stormwater purposes.

Part I.B.4 of the permit requires Henrico County to establish legal authority necessary to control discharges to and from those portions of the MS4 over which it has jurisdiction. Henrico County staff stated that the County did not have legal authority to inspect private industrial and commercial businesses with regard to stormwater discharges unless a release is suspected based on outfall screening information, or if other Henrico County agencies (e.g., Fire Marshall, sanitary district's pretreatment inspectors) identify a potential release. However, this contradicts Section III of the County Storm Water Management Master Plan; it appears that the County has the authority but is not using it. Henrico County currently relies on industrial and commercial facilities submitting to a voluntary inspection and notifies the facilities 30 days in advance of the inspection.

Observation 6. Henrico County is not completing all industrial and commercial facility inspections that the County has identified as necessary.

Part I.B.5 of the permit requires that Henrico County "provide adequate finances, staff, equipment and support capabilities to implement all parts of the Storm Water Management Program required by Part I.A of this permit." County staff indicated that during the July 2005 MS4 audit, EPA identified both automobile maintenance facilities and laundries as potential sources of contaminated stormwater runoff. Due to a lack of inspection staff on the MS4 team, Henrico County has not inspected these facilities to date, and is now planning to begin inspection of automobile maintenance facilities in 2010 and laundries in 2011. Instead, Henrico County has focused on Fat, Oil and Grease (FOG) discharges from food preparation establishments (e.g., restaurants) to the sanitary sewer and storm sewer. In 2009, more than 200 FOG inspections were conducted by the Henrico County Building Inspectors office to determine if grease traps and grease recycling is occurring at food preparation establishments. The focus of this effort appears to be on sanitary sewer discharges rather than runoff to the MS4 since no Notices of Violations have been issued with regard to discharges to the MS4. While the FOG inspections are an important component of maintaining the sanitary sewer system, the County should also be inspecting discharges to the MS4 system.

Additionally, Henrico County relies on one inspector to conduct industrial inspections and outfall screening assessments. Of the hundreds of potential industrial and commercial facilities in Henrico County identified by the EPA inspection team, Henrico County has identified only 11 facilities to voluntarily inspect annually. Of these 11 facilities, only three were inspected every year between 2007 and 2009. Of the remaining eight facilities, six were missing inspections in one of the three years and two were missing inspections in two of the three years. In 2009, the County Industrial Inspector conducted 150 dry-weather outfall inspections to identify illicit discharges, although the inspector indicated that there are over 1,000 outfalls in Henrico County. The need for additional resources was previously mentioned in the July 2005 MS4 audit.

III.C.3. Industrial Facility Site Visits

On April 20, 2010, the EPA inspection team witnessed a series of industrial facility inspections performed by the County Industrial Inspector. Summary observations pertaining to the sites are presented below.

Site: Powhatan Ready Mix – 4608 Racrete Rd, Richmond, VA

Powhatan Ready Mix produces ready-mixed concrete for the Richmond area. Sand and stone are trucked in and stored in four silos. Additionally, the site has a silo for fly ash and two silos for cement. The raw materials are conveyed to mixing equipment where the aggregate is made. The aggregate is then loaded onto trucks and delivered. This facility had not previously been inspected or identified by the County and does not drain to the MS4.

The County Industrial Inspector began the inspection by meeting with the Plant Manager and Area Operations Manager in their office. The inspector reviewed general plant information including their address. The inspector requested to view their VPDES permit and SWPPP, then proceeded to ask questions to determine any potential areas for spills and or materials that could contact stormwater. The inspector then reviewed a map of storm sewer inlets with the plant personnel. At this time, the inspector realized that Powhatan Ready Mix, located at 4608 Racrete Rd, was a separate facility from Ready Mix Concrete, located at 4607 Racrete Rd, which he had intended to visit.

The County Industrial Inspector continued the inspection by touring the outdoor areas of the plant. The EPA inspection team made the following observations which were not noted by the County Industrial Inspector:

- Sediment and debris was present near the surface water outfall of a pit. Hay bales and rip rap were placed in front of and into the pit, respectively, in order to prevent sediment and debris from reaching the outfall to surface water.

- Stockpiles of sand and stone were not covered and were only contained on three of four sides.

- No spill kits were located near the fuel tanks. The site did have a spill kit; however, it was not stored in a readily-accessible area. The County Industrial Inspector did not ask about the location of the spill kits until prompted by the EPA inspection team.

Site: Alfa Laval – 5400 International Trade Drive, Richmond, VA

Alfa Laval manufactures heat exchangers. Industrial processes are primarily conducted indoors and drain to the sanitary sewer; however, metal compactors and some storage areas are present outdoors. Outdoor areas drain to a stormwater retention pond located on site and then drain to the MS4. The facility drains to the MS4 and was last inspected on March 17, 2010. The facility is subject to annual inspections.

The primary stormwater contact, the Environmental Health and Safety Coordinator, was unavailable during the site visit. The County Industrial Inspector met with an alternate contact; however, she was unable to provide the SWPPP and other relevant stormwater-related records. The inspector proceeded directly to touring the outdoor areas of the facility. The EPA inspection team first visited the stormwater detention pond, then viewed catch basins along the outside of a facility building, and concluded the inspection in the storage area. The EPA inspection team made the following observations which were not noted by the County Industrial Inspector:

- Piles of rusty metal were located in the outdoor storage area near a stormwater inlet. The piles were not covered. Rust-colored stains led from the piles to the stormwater inlet indicating that rust-laden water had flowed into the stormwater inlet.

- Uncovered drums were present in the outdoor storage area. Plant personnel confirmed that the drums were empty and stated that they would typically be stored in covered areas. The County Industrial Inspector did not ask about the drums until prompted by the EPA inspection team.

Site: Ennis Paints – 4400 Vawter Ave, Richmond, VA

Ennis Paints manufactures water-based traffic paint and thermoplastic pigments. Industrial processes are located indoors; however, finished paint totes are stored outside. Only the front of the plant, which primarily consists of grass and a parking lot, drains to the MS4. The majority of the facility area drains to a dry detention pond which then drains directly to state waters. The facility was last inspected on March 3, 2010.

The County Industrial Inspector began by interviewing the Environmental Health and Safety Manager. During the interview, it was determined that the plant had not yet completed updating its SWPPP and had not yet fully developed a spill response team. The inspector had identified the need for an updated SWPPP during the last inspection, but had not provided a time frame for completing the SWPPP. The interview also revealed that a spill had occurred since the last inspection. On March 12, 2010, an indoor latex tank ruptured releasing 800 gallons of 100% pure latex paint. The spill exited the facility underneath doors and through cracks in the foundation and, due to wet weather, was carried to the detention pond. The state was notified; however, the County was not notified since the spill did not reach the MS4. The facility plugged the pond's outfall to surface waters and pumped the contaminated water from the pond into tanks. The facility has received authorization to dump the water into the sanitary sewer.

After the interview, the inspection continued with a tour of the outdoor area of the facility. The EPA inspection team viewed the paved area, pond, and outfall to surface water located to the left of the plant. The team then viewed the remaining paved area and stormwater inlets, including the area where the spill reached the outdoors. The team concluded its visit at the front of the facility which drained to the County MS4. The EPA inspection team made the following observations which were not noted by the County Industrial Inspector:

- An uncovered dumpster was located outside.

- Soapy flow was entering a stormwater inlet leading to the pond. The Environmental Health and Safety Manager indicated it was coming from vehicle washing; however, he has previously stated no vehicle washing occurs on site. The County Industrial Inspector did not inquire further about the vehicle washing flow.

- No secondary containment was placed around finished paint totes. Numerous paint totes were present on site.

- Debris was located under a truck on site.

- Numerous paint stains were located around the facility.

Observation 7. Henrico County is not adequately identifying all facilities contributing substantial pollutant loadings.

The EPA inspection team accompanied the industrial inspector to inspect Ready Mix Concrete at 4607 Racrete Rd; however, the team was taken to Powhatan Ready Mix at 4608 Racrete Rd by mistake. The inspector was not aware that Powhatan Ready Mix was a different plant from Ready Mix Concrete until the interview had begun. The plant personnel indicated that the plant had been located at this address for

more than 20 years; however, the plant was not on the list of facilities determined by the County to be contributing substantial pollutant loadings. Multiple other concrete plants were on the list. Part I.A.1.c of the permit requires the County to "control pollutants in storm water discharges from… facilities determined by the permittee to be contributing substantial pollutant loadings" however, the County cannot fulfill this requirement without identifying all such facilities and then prioritizing these facilities with regard to their potential pollutant loadings. A similar issue regarding the lack of a list of facilities contributing substantial pollutant loadings was previously identified in the July 2005 MS4 audit.

Observation 8. The Henrico County Industrial Inspector does not conduct the thorough inspections needed to monitor and control pollutants from industrial facilities.

Part I.A.1.c of the permit requires that Henrico County have a program to monitor and control pollutants in storm water discharges from industrial facilities. During an inspection conducted on April 20, 2010 with the EPA inspection team at Powhatan Ready Mix, the County Industrial Inspector did not note uncovered stockpiles of stone and sand (Exhibit 11, Powhatan Inspection Report). Additionally, the inspector did not ask about the spill kit for the fuel tanks until prompted by the EPA inspection team.

During an inspection conducted on April 20, 2010 with the EPA inspection team at Alfa Laval, a heat exchanger manufacturer, the County Industrial Inspector did not note evidence of rust flowing into the storm drain from uncovered rusty metal stored outside (Exhibit 12, Alfa Laval Inspection Report). Also, the inspector did not investigate drums stored outside until noted by the EPA inspection team.

An inspection at Ennis Paints on April 20, 2010 found the facility did not have a current SWPPP (Exhibit 13, Ennis Paints Inspection Report). Henrico County inspected this location on March 3, 2010 and had told Ennis Paints during that inspection that a complete SWPPP must be developed (Exhibit 14, Past Ennis Paints Inspection Report). Nearly 45 days later, the site had still not developed a complete SWPPP. The County Industrial Inspector stated he did not give Ennis Paints a time frame for completing the SWPPP. During this same time period Ennis Paints had a large paint spill inside the building which ultimately drained beneath a building door, onto a paved area and eventually into the on-site BMP before reaching the adjacent stream. The paint spill occurred during a wet-weather event which allowed the spilled paint to reach the stormwater BMP. Had a SWPPP been implemented in a timelier manner, Ennis Paints may have recognized that a spill originating in the building could ultimately reach the on-site BMP and then the river. Also during the inspection, the Ennis Paint Environmental Health and Safety Manager stated that no vehicle washing occurred on site; however, the County Industrial Inspector did not inquire further when flow from vehicle washing was found on site. The inspector also did not note paint stains located around the property, an uncovered dumpster located outside, debris located under a truck behind the plant, and the lack of secondary containment for totes of finished paint product.

III.C.4. County-owned Industrial Facilities

Henrico County has two government center campuses; one located in the west end of the County and one located in the east. The west end campus is the primary campus and includes a number of industrial facilities. On April 19, 2010, the EPA inspection team visited two of the industrial facilities: the Central Automotive Maintenance garage (CAM) and the County salt storage area. Neither facility was required to have a SWPPP. All referenced photographs are contained in Attachment 4, Photograph Log.

Site: Henrico County Central Automotive Maintenance Garage – 10301 Woodman Road, Henrico, VA

CAM is responsible for maintaining all County-owned vehicles, such as school busses, police cars, and garbage trucks. Two buildings house the maintenance areas, one for large vehicles and one for cars. The outdoor facilities include a washing station, waste oil storage, and vehicle storage. CAM drains to the

MS4; however, it has not been identified as a facility requiring inspection by the County Industrial Inspector.

During the EPA inspection team's site visit, the team toured the inside of the large vehicle maintenance building, viewed the outdoor areas and inlets to the storm sewer and oil-water separator on site, toured the small vehicle maintenance building and ended the visit in the parking area. During the site visit, the EPA inspection team observed the following:

- Waste oil tanks lacked secondary containment or interstitial leak detection (Photograph 1). While the tanks were double-walled, without interstitial leak detection, facility personnel would not be notified until the leak had breached the outer wall. There was no secondary containment to prevent such a leak from reaching the MS4. Additionally, drums were stored outside without cover or secondary containment (Photograph 2). It was not clear if the drums were empty or not. Other tanks without secondary containment were located near the parking area (Photograph 3).

- Uncovered dumpsters were present outside (Photograph 4).

- Oil spill stains were located in numerous locations around the site (Photographs 5 through 8).

After visiting CAM, the EPA inspection team and the County Industrial Inspector visited the County salt storage area. The area was open and not yet grassed. A salt dome, two tanks of magnesium chloride deicing solution, and a stormwater retention pond were located on site. A new infiltration trench was under construction.

The County Industrial Inspector indicated that the pond was used for settling and is not designed for salt removal. If a spill occurs, the pond is pumped out. A wetland was located downslope from the pond.

The EPA inspection team made the following observations while on site:

- Dark stains were located around the retention pond (Photographs 9 and 10). The County Industrial Inspector was not sure if the staining was from a release, or from moisture permeating through the soils.

- The silt fence behind the pond was compromised. A wetland was located downslope from the silt fence (Photograph 11).

- Thick algae build up was present in a small area of a swale leading to the pond (Photograph 12).

- Dead vegetation was present around a swale near the back of the facility (Photograph 13).

- Stockpiles of dirt and stone around the facility were not covered or contained (Photographs 14 and 15). Additionally, large debris, trash and branches, strewn near the back of the site, were not covered or contained (Photograph 16).

Observation 9. Henrico County is not adequately minimizing pollutant discharges from County industrial facilities.

Part I.B.2. states that "the permittee shall ensure that all pollutants discharged from the municipal separate storm sewer system shall be reduced to the maximum extent practicable." The EPA inspection team toured Henrico County's Central Automotive Maintenance (CAM) facility and salt storage facility which both had

areas where storm water could contact pollutants. At the facilities, the EPA inspection team noted evidence of numerous oil spills in close proximity to storm drains, open dumpsters, outdoor above-ground petroleum storage tanks without secondary containment, compromised silt fencing near a wetland, and uncovered stockpiles. While neither facility was required to have a SWPPP, both have employed some structural and source control BMPs to control pollutant discharges in storm water. Neither facility has a BMP plan for the maintenance of the existing controls or installation of new controls.

III.D. Requirement I.A.1.d – Runoff from Construction Sites

Part I.A.1.d of the permit requires a program to implement and maintain structural and nonstructural best management practices to reduce pollutants in storm water runoff from construction sites, which the County addresses through a program referred to as its Erosion and Sediment Control (ESC) Program. The County ESC Program components and applicable requirements related to this section of the permit are discussed below.

III.D.1. Erosion and Sediment Control Plan Review

The Henrico County Environmental Ordinance, Article II, *Erosion and Sediment Control* (hereafter, Henrico County Erosion and Sediment Control Ordinance) requires project proponents to submit an ESC plan for review and approval by the County when the project will result in 2,500 square feet or more of land disturbance. The Engineering and Environmental Services Division has one Environmental Engineer who reviews ESC plans for most private development projects. ESC plans for many of the County-administered projects (e.g., transportation) are reviewed by the County's Senior Environmental Inspector.

III.D.2. Erosion and Sediment Control Inspections

ESC inspections are conducted by County Department of Public Works Environmental Inspectors. There are eight Environmental Inspector positions assigned to geographic areas. The area assigned to an inspector is determined by the number and distribution of active projects, and the geographic boundaries are delineated by grouped watersheds. In response to a review of the County's ESC Program by DCR, one Environmental Inspector has been tasked with conducting ESC inspections of construction sites involving single family homes. The Virginia Erosion and Sediment Control Regulations, 4VAC50-30-060B, Maintenance and Inspections, requires Henrico County to "provide for an inspection during or immediately following initial installation of erosion and sediment controls, at least once in every two-week period, within 48 hours following any runoff producing storm event, and at the completion of the project prior to the release of any performance bonds."

A County Engineering and Environmental Services Division database is used to maintain ESC inspection records. If the County Environmental Inspector does not identify deficiencies during an ESC inspection, the inspection record is limited to recording the date of inspection in the database. When deficiencies are identified by the County Environmental Inspector, additional details are maintained in hardcopy files which include the County *Erosion and Sediment Control Inspection Report*.

Observation 10. Henrico County Environmental inspectors do not assess non-sediment, construction site pollutant sources.

Part I.A.1.d of the permit requires a "program to continue implementation and maintenance of structural and nonstructural best management practices [i.e., temporary construction site BMPs] to reduce *pollutants* in storm water runoff from construction sites" [emphasis added].

In contrast to this requirement, the County Environmental inspectors have not been tasked with assessing construction site pollutant sources other than sediment-generating sources. Section 10-31 of the Henrico

County Erosion and Sediment Control Ordinance states "the purpose of this article is to provide for the control of *erosion and sedimentation*….Authority for this article is found in [the Virginia Erosion and Sediment Control Law] Code of Virginia §§ 10.1-562 and 10.1-2108, as amended [emphasis added]." The Virginia Erosion and Sediment Control Regulations (4VAC50-30) have been promulgated to administer, implement, and enforce the Virginia Erosion and Sediment Control Law (§ 10.1-560 et seq. of the Virginia Code). However, the Virginia Erosion and Sediment Control Regulations pertain only to "erosion and sediment control concerns," and mandate the adoption of erosion and sediment control programs by localities, which dictates the scope of the local program (Exhibit 15, VESCR). Further explanation is provided in the County Storm Water Management Master Plan. Specifically, the County Storm Water Management Master Plan, Section IV.2, Pre-Construction Meetings and Inspections, states "responsibility for inspection and enforcement rest with the Department of Public Works, who make periodic inspections of land-disturbing activities in accordance with State law." Accordingly, the County's inspection checklist does not include a non-sediment component or question set (Exhibit 16, ESC Inspection Checklist).

III.D.3. Construction Site Visit

On April 20, 2010 the EPA inspection team witnessed an inspection of a Henrico County Public School construction site (West Area Middle School No. 1) performed by a County Environmental Inspector. Summary observations pertaining to the site visit are presented below.

Site: Henrico County Public School – West Area Middle School No. 1

During the EPA inspection team's site visit on April 20, 2010, deficiencies pertaining to non-sediment pollutants such as solid waste (Photographs 17 through 19), an oil product (Photograph 20), construction chemicals (Photographs 21 and 22), and concrete wash water were observed. Although the site operator had obtained coverage under the *Virginia Storm Water Management Program (VSMP) General Permit No. VAR10 for Discharges of Storm Water from Construction Activities*, effective July 31, 2009 (hereafter, Construction General Permit), the County-approved Erosion and Sediment Control Sheet was being used as the SWPPP site map for the construction site. Due to the limited scope of the County-approved Erosion and Sediment Control Sheet, the site map did not designate a location for a concrete wash-out area, a requirement of the Construction General Permit. Because a concrete wash-out BMP had not been designated at the site, concrete wash water was observed being actively released onto the ground surface (Photographs 23 through 29).

The County Environmental Inspector did not identify deficiencies pertaining to non-sediment pollutants while on site, and the deficiencies described in the preceding paragraph were not documented in the corresponding County *Erosion and Sediment Control Inspection Report* (Exhibit 17, County inspection record for West Area Middle School). Furthermore, the County's Senior Environmental Inspector was present during the site visit, but did not express that the deficiencies pertaining to non-sediment pollutants were actionable deficiencies.

The EPA inspection team noted that the Henrico County Storm Water Management Ordinance may enable the County to address non-sediment, construction site pollutant sources such as: construction chemicals; vehicle and equipment maintenance and fueling; paving and grinding; spill prevention and control; solid waste; concrete waste and wash water; and sanitary/septic waste (e.g., portable toilets).

Observation 11. Henrico County's Erosion and Sediment Control inspection documentation was not in accordance with the Henrico County Erosion and Sediment Control Ordinance.

Part I.A.1.d(1) of the permit requires Henrico County "to continue to operate in accordance with, and continue enforcement of, the stormwater management requirements of the Chapter 10, Environment, and Chapter 24, Zoning, of the Code of the County of Henrico Virginia, for land disturbing activities."

Section 10-41 of the Henrico County Erosion and Sediment Control Ordinance states "inspection and enforcement under this article shall be the responsibility of the director [director of public works/county engineer] and his designees, who shall make periodic inspections of the land disturbing activity in accordance with [the Virginia Erosion and Sediment Control Regulations] 4VAC50-30-060B."

The Virginia Erosion and Sediment Control Regulations, 4VAC50-30-060B, Maintenance and inspections, requires Henrico County to "provide for an inspection during or immediately following initial installation of erosion and sediment controls, at least once in every two-week period, *within 48 hours following any runoff producing storm event*, and at the completion of the project prior to the release of any performance bonds [emphasis added]." In contrast to this requirement, Henrico County does not maintain records to document the type of inspection performed (e.g., initial installation, two-week period, post-storm event, project completion). The County *Erosion and Sediment Control Inspection Report*, the inspection form used to document inspections, does not provide a structured format to facilitate documenting the inspection type (Exhibit 16, ESC Inspection Checklist). The County's Senior Environmental Inspector indicated that storm events are not tracked, and precipitation records are not utilized to ensure that post-storm event inspections are conducted within the required 48 hour time period. The County's Senior Environmental Inspector further explained that due to the limited number of County Environmental inspectors, the County relies on the judgment of its inspectors to conduct post-storm event inspections of those sites which are in critical stages of construction, rather than all sites. Under this approach, Henrico County does not maintain records to document that inspections are carried out in accordance with Section 10-41of the Henrico County Erosion and Sediment Control Ordinance and the Virginia Erosion and Sediment Control Regulations.

III.D.4. Education and Training for Construction Site Operators

The County Storm Water Management Master Plan, Section IV.3, Construction Site Operators Education and Training Program, states that "construction site operators often need training and education about the sources, control, and impacts of pollutants in run-off from construction sites…The State has recently required contractors to obtain erosion and sediment control certification." The Virginia Erosion and Sediment Control Training and Certification Program consists of two tracks: the Erosion and Sediment Control Certification Program and Responsible Land Disturber (RLD) Certificate of Competence Program. The Erosion and Sediment Control Certification Program is intended for local and state officials to obtain certain certifications (e.g., ESC Inspector, Program Administrator, Plan Reviewer, and Combined Administrator) to implement local government ESC programs. The RLD Certificate of Competence Program is aimed at a broader audience to provide the required certification to conduct a regulated land disturbing activity in the commonwealth. The RLD is the person responsible for day-to-day implementation and maintenance of all ESC measures in accordance with the County-approved plan. All construction projects are required to staff an individual who holds DCR certification as a RLD.

Henrico County relies on the Virginia Erosion and Sediment Control Training and Certification Program, and does not conduct its own formal education and training classes for construction site operators regarding the sources, control, and impacts of pollutants in run-off from construction sites. Accordingly, the *Henrico County Municipal Separate Storm Sewer System 2009 Virginia Pollutant Discharge*

Elimination System Annual Report, VPDES Permit No. VA0088617, states "no formal education classes were sponsored by the County for construction site operators during this permit year." This issue was previously mentioned in the July 2005 MS4 audit which states "the County conducted a Site Contractor Workshop on November 7, 2002, which was a few months before the new RLD requirements were finalized."

The County's Senior Environmental Inspector explained that the County uses pre-construction meetings to educate construction site operators on site-specific issues. At the pre-construction meeting, the County's Environmental Inspector will review the ESC plan with the RLD and ensure that the erosion and sediment control sequence and intent of the ESC plan is understood.

Observation 12. Henrico County has not conducted a formal education and training class for construction site operators during its current MS4 permit term.

Part I.A.1.d(2) of the permit requires Henrico County to "continue implementation of the education and training program for construction site operators."

In contrast to this requirement, the County's Senior Environmental Inspector indicated that Henrico County had not conducted a formal education and training class for construction site operators since a site contractor workshop that was held on November 7, 2002 (Exhibit 18, Construction workshop syllabus). The County's Senior Environmental Inspector also indicated that he found the 2002 site contractor workshop useful in reaching a broad audience, and covering many of the deficiencies commonly identified at construction sites by the County's Environmental Inspectors. However, this workshop was held prior to the March 18, 2003 effective date of Henrico County's MS4 permit, and the County therefore had not conducted a formal education and training class for construction site operators during its current permit term.

Attachment 1
County of Henrico's Permit (VPDES Permit VA0088617)

Permit No. VA0088617
Effective Date: March 18, 2003
Modification Date: March 5, 2004
Expiration Date: March 17, 2008

AUTHORIZATION TO DISCHARGE UNDER THE

VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM

AND

THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the County of Henrico is authorized to discharge from all portions of the municipal separate storm sewer system owned and operated by the permittee to surface waters of the State.

The authorized discharge shall be in accordance with this cover page, Part I – Storm Water Management Program Requirements, Part II – Conditions Applicable To All VPDES Permits, as set forth herein.

_____
Director, Department of Environmental Quality

_____
Date

STORM WATER MANAGEMENT PROGRAM REQUIREMENTS

A. STORM WATER MANAGEMENT PROGRAM

The permittee shall continue development, implementation, and, where appropriate, refinement of the Storm Water Management Program including pollution prevention measures, management or removal techniques, use of legal authority, and other appropriate means to control the quality and quantity of storm water discharged from the municipal separate storm sewer system. The Storm Water Management Program shall include controls necessary to effectively prohibit the unauthorized discharge of non-storm water into the municipal separate storm sewer system and reduce the discharge of pollutants from the municipal separate storm sewer system to the maximum extent practicable. The permittee shall implement, to the maximum extent practicable, the provisions of the Storm Water Management Program required under this Part as a condition of the permit. All applicable components of the Municipal Separate Storm Sewer System Phase I VPDES Permit Application submitted in accordance with 40 CFR 122.26, and all approved modifications are hereby incorporated by reference into the Storm Water Management Program. The Storm Water Management Program shall cover the term of the permit and the permittee shall update it as necessary, or as required by the Department of Environmental Quality, to ensure compliance with the statutory requirements of the Clean Water Act §402(p)(3)(B). Progress towards the goals and meeting specific program components shall be documented in the Annual Report required by this permit.

1. Contents of the Program

The Storm Water Management Program shall contain the following four elements:

a. A program to utilize structural and source control measures to reduce pollutants that are discharged through the municipal separate storm sewer system in storm water runoff from commercial and residential areas, including a schedule for implementing the controls.

As part of the program outlined by the County in the Storm Water Management Master Plan:

(1) The permittee shall continue with the existing maintenance program for structural controls owned and operated by the permittee.

The permittee is responsible for obtaining any required State or federal permits necessary to complete maintenance activities, including permits for land disturbance, wetlands disturbance, dredging, etc.

(2) The permittee shall adhere to and, where applicable, enforce all those components of The Comprehensive Plan, the Storm Water Management Master Plan, and all storm water related ordinances pertaining to development and redevelopment in the County.

(3) The permittee shall maintain the existing programs designed to reduce impacts on receiving waters from the operation and maintenance of public streets, roads and highways.

(4) The permittee shall maintain the existing programs to assure that flood management projects assess the impacts on the water quality of receiving water bodies.

(5) The permittee shall maintain its program to reduce the pollutants in discharges to the municipal separate storm sewer system associated with the application of pesticides, herbicides and fertilizers. The permittee shall maintain the public relations plan designed to educate the general public and targeted groups about storm water pollution prevention, which includes the application of herbicides, pesticides, and fertilizer.

b. A program and schedule to detect and remove, or to notify a discharger to apply for a separate VPDES permit for, unauthorized non-storm water discharges and/or improper disposal into the municipal separate storm sewer system.

As part of the program outlined by the County in the Storm Water Management Master Plan:

(1) The permittee shall implement and enforce all provisions of the County's Storm Sewer System Discharge Ordinance which prohibits unauthorized non-storm water discharges to the storm sewer system.

(2) The permittee shall continue the implementation of the current field screening procedures for identifying unauthorized non-storm water discharges and improper disposal into the storm sewer system. Priority shall be placed on segments of the storm sewer system which receive drainage from industrial and commercial sources.

(3) Where necessary, the permittee shall conduct on-site investigation of potential sources of unauthorized non-storm water discharges. The permittee shall act as expeditiously as possible to require a discharger to eliminate unauthorized non-storm water discharges except discharges identified in Part I.B.4 of this permit, or, if appropriate, to notify the discharger to apply to the Department of Environmental Quality for a Virginia Pollutant Discharge Elimination System (VPDES) permit for the discharge. If a VPDES permit is needed, but not obtained by the discharger, the permittee shall take actions to implement the applicable provisions of the County Code. The permittee shall require immediate cessation of improper disposal practices upon identification of responsible parties.

(4) To the maximum extent practicable, the permittee shall contain spills and prevent spills from reaching, and subsequently discharging from, the municipal separate storm sewer system. The permittee shall continue to respond to hazardous material spills under the latest "Hazardous Materials Emergency Response Plan" prepared by the County.

(5) The permittee shall continue implementation of the program to promote, publicize, and facilitate public reporting of the presence of unauthorized non-storm water discharges or water quality impacts associated with discharges from the municipal separate storm sewer system.

(6) The permittee shall continue implementation of the educational/public information activities relative to proper management and disposal of used oil and toxic materials, including household hazardous wastes.

(7) Where necessary, the permittee shall develop and implement controls to limit infiltration of seepage from the municipal sanitary sewer to the municipal separate storm sewer. The permittee shall continue implementation and enforcement of the applicable provisions of the County Code addressing the restriction of interconnection of the sanitary sewer and storm sewer system.

c. A program to monitor and control pollutants in storm water discharges from municipal landfills, hazardous waste treatment, storage and disposal facilities, industrial facilities subject to Section 313 of the Emergency Planning and Community Right to Know Act, and facilities determined by the permittee to be contributing substantial pollutant loadings.

As part of the program outlined by the County in the Storm Water Management Master Plan:

(1) The permittee shall inspect any new or previously unidentified facilities (as described above), and may establish and implement control measures as necessary/appropriate for storm water discharges from these facilities.

(2) The permittee may monitor, or require the facility to monitor, storm water discharges associated with industrial activity to the municipal separate storm sewer system from facilities described in Part I.A.1.c, above. This monitoring program shall be designed by the County.

d. A program to continue implementation and maintenance of structural and nonstructural best management practices to reduce pollutants in storm water runoff from construction sites.

As part of the program outlined by the County in the Storm Water Management Master Plan:

(1) The permittee shall continue to operate in accordance with, and continue enforcement of, the stormwater management requirements of the Chapter 10, Environment, and Chapter 24, Zoning, of the Code of the County of Henrico Virginia, for land disturbing activities.

For land disturbing activities equal to or greater than one acre, the permittee shall notify the construction site owner that they must apply for Storm Water Construction General Permit with the Department of Environmental Quality. The permittee shall maintain records of all approved sites. The permittee shall submit a monthly summary of these approved plans to the Department of Environmental Quality, Piedmont Regional Office, which will include:

(a). Owners Name
(b). Owners Address
(c). Site Name
(d). Site Address

The Department of Environmental Quality will determine if the land disturbing activity has been covered under a VPDES General Permit and will notify the owner and the permittee if such a permit is required. In addition, the permittee's Erosion and Sedimentation (E&S) Program shall be fully approved by the Department of Conservation & Recreation (DCR). If the permittee does not have a fully approved program, all efforts to achieve approval shall be documented in the annual report.

(2) The permittee shall continue implementation of the education and training program for construction site operators.

2. Program Modifications

Modifications for the purpose of this part cover major program changes including additions and deletions of program components in the Storm Water Management Program. Routine changes associated with the day-to-day operations of the specific components of the Storm Water Management Program are not subject to the requirements of this Part, but shall be documented in the Annual Report required by this permit.

a. Program Modifications Requested by the Permittee

The permittee shall modify the Storm Water Management Program during the term of the permit in accordance with the following procedures:

(1) The approved Storm Water Management Program shall not be modified by the permittee without the prior approval of the Department of Environmental Quality, unless in accordance with items (2) and (3) below.

(2) Modifications adding (but not subtracting or replacing) components, controls or requirements to the approved Storm Water Management Program may be made by the permittee at any time upon written notification to the Department of Environmental Quality.

(3) Modifications replacing an ineffective or infeasible BMP specifically identified in the Storm Water Management Program with an alternate BMP may be requested at any time. Unless denied by the Department of Environmental Quality, the modification shall be deemed approved and shall be implemented by the permittee within 60 days from DEQ receipt of the request. Such requests shall include the following:

(a) an analysis of why the BMP is ineffective or infeasible (including cost prohibitives);

(b) expectation on the effectiveness of the replacement BMP; and

(c) an analysis of how the replacement BMP is expected to achieve the goals of the BMP to be replaced.

(4) Modification requests and/or notifications shall be made in writing and signed in accordance with Part II.K of this permit.

b. Program Modifications Requested by the Department of Environmental Quality

This permit may be modified and alternatively revoked and reissued to require modifications of the Storm Water Management Program to:

(1) address adverse impacts on receiving water quality caused, or contributed to, by discharges from the municipal separate storm sewer system;

(2) include more stringent requirements necessary to comply with new state or federal statutory or regulatory requirements; or

(3) include such other conditions deemed necessary by the Department of Environmental Quality to comply with the goals and requirements of the Clean Water Act.

3. Annual Report

The first Annual Report shall be submitted to the Department of Environmental Quality, Piedmont Regional Office, by April 10, 2004. Subsequent Annual Reports shall be submitted by April 10, 2005, April 10, 2006, April 10, 2007, and April 10, 2008. The report shall include the following information for the period covered:

a. The status of implementing the components of the Storm Water Management Program that are established under Parts I.A.l.a, b, c, and d of this permit. In addition to descriptions of each program element's status, the following specific information shall also be submitted:

(1) A summary of the maintenance activities performed on structural BMPs in accordance with Part I.A.1.a.(1) of this permit;

(2) The progress on plan reviews of future flood management projects implementing useful water quality measures.

(3) The progress on the County's participation in a local or regional public information program to address the following:

(a). Any new public education programs concerning the use and disposal of pesticides, herbicides and fertilizers by commercial applicators and by the general public;

(b). Any new programs developed to promote, publicize, and facilitate public reporting of the presence of non-storm water discharges into the municipal separate storm sewer system and a summary of the public response to the program;

(c). Any new program developed to educate the public on proper management and disposal of used oil and toxic material developed in accordance with Part I.A.1.b.(6) of this permit.

(4) The number and nature of unauthorized non-storm water discharges or improper disposal practices eliminated under the program by conducting on-site investigations of potential sources of non-storm water discharges developed under Part I.A.1.b.(3) of this permit;

(5) A listing of any facilities identified and inspected under Part I.A.l.c.(l) of this permit, a summary of any controls established for these facilities, and the implementation schedule for any controls established for these facilities; and,

(6) Results of any monitoring performed in accordance with Part I.A.l.c.(2) of this permit.

b. Proposed changes to the Storm Water Management Program including those changes that were implemented during the reporting year;

c. Revisions, if necessary, to the assessment of controls and to the fiscal analysis reported in the permit application, and an assessment of the effectiveness of new controls established by the Storm Water Management Program;

d. A summary of the progress toward achieving the goals of the Storm Water Management Program through the implementation of the Stream Assessment / Watershed Management Program as indicated in Part I.C.2. of this permit.

e. Annual program expenditures for the reporting year and the Stormwater Water Management Program budget for the year following each Annual Report.

f. A summary describing the number and nature of Stormwater Water Management Program enforcement actions, inspections and public education programs;

g. Identification of water quality improvements or degradation; and,

h. A summary of cooperative or multi-jurisdictional activities the permittee undertook to facilitate compliance with permit requirements.

i. In order to track all storm water management BMP's in the Chesapeake Bay watershed, the following information shall be reported annually:

(1) Type of permanent BMP installed (structural or non-structural);

(2) Geographic location (county-state hydrologic Unit Code);

(3) Waterbody the BMP is discharging into;

(4) Number of acres treated;

(5) Whether or not the BMP is inspected and maintained;

(6) How often the BMP is maintained (quarterly, annually, etc.).

B. SPECIAL CONDITIONS

1. The permittee shall submit the results of any tracking required by this permit with the annual report required by Part I.A.3. of this permit. The annual report shall be submitted to:

Department of Environmental Quality
Piedm ont Regional Office
4949-A Cox Road
Glen Allen, Virginia 23060

2. The permittee shall ensure that all pollutants discharged from the municipal separate storm sewer system shall be reduced to the maximum extent practicable through the continued development and implementation of a comprehensive Storm Water Management Program as specified in Part I.A of this permit.

3. The permittee shall effectively prohibit non-storm water discharges into the municipal separate storm sewer system. The permittee may allow discharges of non-storm water or storm water associated with industrial activity as defined at 40 CFR 122.26 through the municipal separate storm sewer system if such discharges are:

   a. authorized by a separate VPDES permit;

   b. not identified by the permittee or the Department of Environmental Quality to be significant sources of pollutants to State waters and may include the following: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)) to separate storm sewers, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street washwater, and discharges or flows from fire fighting; or

   c. as necessary, the permittee may incorporate appropriate control measures in the Storm Water Management Program required by Part I.A of this permit to ensure the discharges identified in a and b above are not significant sources of pollutants to State waters.

4. The permittee shall operate pursuant to the established legal authority described in the 40 CFR 122.26 (d)(2)(i), or shall obtain the legal authority necessary to control discharges to and from those portions of the municipal separate storm sewer system over which it has jurisdiction. This legal authority may be a combination of statute, ordinance, permit, contract, or an order to carry out all parts of the Storm Water Management Program identified in Part I.A of this permit.

5. To the maximum extent practicable, subject to annual appropriations, the permittee shall provide adequate finances, staff, equipment, and support capabilities to implement all parts of the Storm Water Management Program required by Part I.A of this permit. Where programs operated by entities other than the permittee are included in the permittee's Storm Water Management Program, the permittee shall, to the maximum extent practicable, ensure that such programs remain operational for the term of the permit. However, the permittee shall not be responsible for operating or financing the program in the future if the current operators cease the activity.

6. During the term of the permit, the permittee shall continue to identify any municipal separate storm sewer system outfalls not previously identified.

7. This permit shall be modified or alternatively revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the Municipal Separate Storm Sewer System (MS4) that are not consistent with the permit requirements.

C. STREAM ASSESSMENT AND WATERSHED MANAGEMENT PROGRAM EFFECTIVENESS

1. The Department of Environmental Quality and the permittee may assess improvement in the quality of storm water from the municipal separate storm sewer system based on the information required by this Part, plus any additional information generated by the permittee.

2. The permitee shall implement the Stream Assessment and Watershed Management Program as detailed in the Henrico County Environmental Program Manual (August 2001) of the permit reissuance application. The Program shall consist of the following components to be conducted over the term of the permit:

   a. Development projects (including state road and land development projects) resulting in 2,500 square feet or more of land disturbance shall be subject to the applicable requirements of the Program. These requirements shall include:

      (1) Designation of the Stream Protection Area (SPA)
      The SPA is a riparian buffer 50 feet in width on either side of an intermittent stream with 100 acres or more of drainage area.

      (2) Reforestation of the SPA
      For development projects resulting in greater than 16% impervious cover, the SPA on the development site must remain forested. If the SPA is not currently forested, it must be reforested as part of the development project. Reforestation must be accomplished in accordance with Minimum Standard 9.10 of the Henrico County Environmental Program Manual.

      (3) Installation of Energy Dissipators / Level Spreaders (ED)
      At locations where concentrated stormwater is discharged into the SPA, EDs are installed to introduce the runoff into the SPA in sheetflow fashion. The EDs must be provided in accordance with Minimum Standard 9.01 of the Henrico County Environmental Program Manual.

      (4) Pollutant removal by providing a Best Management Practice (BMP) depending on the watershed and physical characteristics of the development project, a BMP may be required to achieve the calculated pollutant removal requirement.

      (5) Contribution to the Environmental Fund
      Depending on the watershed and physical characteristics of the development project, a monetary contribution may be required based on the calculated pollutant removal requirement. These monies are used by the County to conduct projects throughout the watersheds in the County to provide water quality improvement.

b. The permittee shall conduct various projects throughout the watersheds in the County using the Environmental Fund. Expenditures from the Environmental Fund shall occur in the river basin (James River or Chickahominy River) from which the money was generated. Project locations were identified during a County-wide assessment of the streams with 100 acres or more of drainage area (440 miles) and the projects are prioritized based on the assessment data and additional field evaluations. The projects will include the following:

(1) Stream Restoration;

(2) Streambank Stabilization;

(3) Riparian Buffer Restoration;

(4) Stream Obstruction Removal;

(5) Dumpsite Removal;

(6) Regional BMPs / Constructed Wetlands; and

(7) Education / Citizen Outreach.

c. The permittee shall conduct additional evaluations of various stream reaches as projects are conducted or changes occur that may impact the stream health. The evaluations may involve habitat assessments, rapid bioassessments, water chemistry sampling and stream influence inventories. Additional detailed studies of stream reaches may also be conducted prior to selection and design of specific projects.

d. The permittee shall conduct additional bioassessments in accordance with EPA's Rapid Bioassessment Protocol to provide additional baseline data throughout the County as well as evaluate the results of projects conducted as a result of the Stream Assessment and Watershed Management Program. Depending on the need for additional data, four or five bioassessments shall be conducted each year.

3. The permittee shall provide an annual reporting of the following:

a. For each development project approved for construction during the reporting period, the following information shall be summarized:
(1) The area of the project;
(2) The pre and post development impervious percentages;
(3) The water quality situation;
(4) The pollutant removal requirement;
(5) The hydrologic unit / watershed in which the project is located;
(6) The Watershed Management Area in which the project is located;
(7) The length of the stream protection area (SPA) designated;
(8) The number of energy dissipators (EDs) provided;
(9) The pollutant removal requirement achieved through use of a structural BMP; and
(10) The pollutant removal requirement achieved through a contribution to the Environmental Fund and the contribution amount.

b. For each structural BMP approved for construction during the reporting period, the following information shall be summarized:
   (1) The type of BMP,
   (2) The acreage served by the BMP,
   (3) The hydrologic unit / watershed in which the BMP is located, and
   (4) The calculated pollutant removal achieved by the BMP.

c. The following information shall be provided regarding contributions to the Environmental Fund:
   (1) The total amount collected Countywide and within the James River and Chickahominy River watersheds, and
   (2) The total amount spent Countywide and within the James River and Chickahominy River watersheds.

d. A description and estimation of water quality benefit of the projects conducted using the Environmental Fund including:
   (1) The stream buffers reestablished, including the area of restored buffers, length of affected streams and cost,
   (2) The streams restored, including lengths, cross-sections, and cost,
   (3) The streambanks stabilized, including length of affected streams and cost,
   (4) The educational programs conducted, including cost,
   (5) The amount of sediment removed from streams and methods of disposal,
   (6) The number of regional BMPs and wetlands constructed, including area served and cost,
   (7) The illicit discharges identified and resolved, including cost,
   (8) The dumpsites cleaned and removed, including cost,
   (9) The additional habitat assessments, bioassessments, and other studies conducted, including cost, and
   (10) Any other Environmental Fund expenditure not previously listed.

Attachment 2
Sign In Sheets

4/19/10

2010 EPA Audit Sign-In

John Fowler	Public Works
Charles Gibbons	General Services
Mike Hackett	Public Works - EESD
Fred Drake	General Services
C. L. (Butch) Jones	Henrico Fire
Lyn Richardson	Public Utilities - Solid Waste Div
~~BILL SMITH~~	~~GENERAL SERVICES~~
Mark Biggs	Eastern Research Group
Scott Coulson	EPA Contractor
Allison Graham	EPA - Region 3
ANDY DINSMORE	US EPA - REGION 3
Kavya Kasturi	EPA contractor - ERG
Doug FRITZ	VA DCR
MASON HARPER	VA DCR
SCOTT JACKSON	DPW
Frank FLANNAGAN	Rec & Parks / Belmont Golf Course
Jason Young	General Services
MIKE JENNINGS	DPW - Traffic Engineering
Rob Tieman	DPW - Capital Projects
Samuel Ams	DPW Chief Design Engineer
Donny Johnson	DPW - Construction Div.
M.A. Williard	DPW - Capital Projects
Richard E. Martin II	DPW.
BERNARD McLAUGHLIN	DEPT. PUBLIC WORKS
Karen Carter	Extension Office
JAMIE MASSEY	DPW

PAUL SMITH	DPW CONSTRUCTION
JOHNNY NIXON	DPW CONSTRUCTION
BRIAN WALKER	DPW CONSTRUCTION
AIAN EDDLETON	GENERAL SERVICES AUTO MAINT
Robin Wilder	DPW EESD
Jeral Beresh	Building Insp.
Gregory Revels	Building Inspections
Lee Maddox	Public Utilities Construction
Ben Thorp	Co. Attorney's Office
DAVID GRAHAM	COUNTY SCHOOLS
EDWARD PASS	GENERAL SERVICES, FACILITIES

Kick-Off Session

MS4 Program Evaluation Sign-In Sheet (Please Print)

Permittee: Henrico County, VA **Date conducted:** 04/19/10

Permit No. VA0088617

Name	Title	Company	Department	Phone
Scott Coulson	EPA Contractor	PG Environmental	NPDES	303.279.1788
Mark Briggs	EPA Contractor	ERG, Inc	NPDES	989 345 7595
Bill Smith	Deputy Director	Henrico Co	Gen. Services	804 501 5271
Lyn Richardson	Environmental Manager	Henrico Co	Public Utilities Solid Waste Div	804-727-8974
C.L. (Butch) Jones	Deputy Fire Marshal	Henrico Fire	Fire	804-501-7310
Fred Drake	Buildings & Grounds Manager	Henrico Co.	General Services	804-501-5752
Mike Hackett	Senior Environmental Engr.	Henrico Co.	DPW. EESD	804-727-8328
Charles Gibbons	Fleet Manager	Henrico Co.	General Services	804-727-8630
John Fowler	Environmental Engineer	Henrico Co.	P.Works/Enviro.	804-501-7319
Randy Buchanan	Environmental Engineer	Henrico Co.	DPW	804-349-3201
Keith White	Senior Engineer	Henrico Co.	DPW-EESD	804 501-7475
Chris Winstead	Assistant Director	Henrico Co.	DPW	804-501-4391
Sharon Smidler	Engineer II	Henrico Co	DPW-EESD	804-501-7505
John Woodburn	"	"	"	804-501-5851
John Newton	Engineer I	"	"	804 501 4168

Sign In Sheet - Team 1 9am 4-19-10
Industrial & Commercial

Name	Department / Organization
Fred Pitke	General Services
Jerry Buresh	Building Insp.
Ben Thorp	Co. Atty's office
Gregory Revels	Building Inspection
Lynn Richardson	Public Utilities
John Fowler	Public Works EESD
Keith White	DPW - EESD
Allison Buschy	Public Utilities
Butch Jones	Fire Dept

Team 2 Construction Sites Office Mtg.

Henrico County, VA Permit No. VA 0088617 4/19/10

Name	Dept.
Robin Wilder	DPW - EESD
M. A. Hilliard	DPW - Capital Projects
Jason Young	General Services
CHRIS WINSTEAD	DPW
SONNY NIXON	DPW
Sharon Smidler	DPW - EESD
SCOTT JACKSON	DPW - EESD
Donny Johnson	DPW - Const.
PAUL SMITH	DPW - CONST
DAVE GRAHAM	COUNTY SCHOOLS
EDWARD BASS	GENERAL SERVICES, FACILITIES
WILLIAM SMITH	11
BRIAN WALKER	DPW - Construction
Sam Amos	DPW Chief Designing.
Lee Maddox	Public Utilities Construction
Rob Tieman	DPW - Capital Projects
MIKE HACKETT	DPW - EESD
MIKE JENNINGS	DPW - TRAFFIC

Post Construction

MS4 Program Evaluation Sign-In Sheet (Please Print)

Permittee: Henrico County, VA **Date conducted:** 04/19/10

Permit No. VA0088617

Name	Title	Company	Department	Phone
Scott Coulson	EPA Contractor	PG Environmental	NPDES	303.279.1778
Doug Fritz	DCR MS4 Manager	DCR		(804) 371 7330
~~Edward Ross~~	~~Sr. Cap. Proj. Mgr.~~	~~Henrico Co.~~	~~Gen. Serv~~	804.501.7349
Dave Graham	Capital Proj. Mgr.	County Schools	Schools	804.652.3187
Bernard McLaughlin	Asst Road Supt.	D.P.W	Road Dept	804-652-3975
Richard E. Martin II	"	"	"	804-727-8260
Jamie Massey	Road Soper.	DPW	Road Dept	804.727.8300
Fred Drake	Buildings & Grounds Manager	Henrico Co.	General Services	804-501-5152
Mike Hackett	Senior Environmental Inspector	Henrico Co.	DPW-EESD	804-727-8328
John Woodburn	Review Engineer	DPW	DPW-EESD	804-501-5851
Mike Jennings	Traffic Engineer	DPW	Traffic	804-501-4238
Vince Henderson	Superintendent	Henrico Co.	Park Services	804-~~727~~-8213
Frank Flannagan	Golf Course Superintendent	Henrico/~~Recreation~~	Parks & Rec	804-501-5993
Chris Winstead	Assistant Director of Public Works	~~DPW~~ Henrico	DPW	804-501-4391

MS4 PROGRAM EVALUATION SIGN-IN SHEET (PLEASE PRINT)

Permittee:	**Date conducted:** ___/___/___
Permit No.	

Name	Title	Company	Department	Phone
Jason Young	Environmental Coordinator	Henrico Co	General Services	804-501-5659
JOHN NEWTON	ENVIRONMENTAL ENG	"	PUBLIC WORKS	804 501 4168
SCOTT JACKSON	"	"	"	804 501 7474
ANDY DINSMORE	STORMWATER TEAM LEADER	US EPA, R3	WPD	215-814-2788

Attachment 3
Exhibit Log

Exhibit 1
Henrico County Environmental Ordinance, Article VII, *Stormwater Management*

ARTICLE VII. STORMWATER MANAGEMENT*

_____

***State law references:** Locality may adopt stormwater control ordinance consistent with state law, Code of Virginia, § 15.2-2114.

_____

Sec. 10-215. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Director means the director of public works or his designee.

Discharge means to dispose, deposit, spill, pour, inject, dump, leak or place by any means, or that which is disposed, deposited, spilled, poured, injected, dumped, leaked or placed by any means.

Illicit discharge means any discharge to a storm sewer that is not composed entirely of stormwater, except discharges pursuant to a VPDES permit or discharges resulting from firefighting activities. This definition shall not include the discharges listed in section 10-218(b) unless such discharges are identified by the county as sources of pollutants to waters of the United States.

Industrial discharge means discharges from any conveyance which are used for collecting and conveying stormwater and which are directly related to manufacturing, processing or raw materials storage areas at an industrial plant, as defined by federal stormwater management regulations.

Person means any individual, firm, corporation, partnership, association, organization or other entity, including governmental entities, or any combination thereof.

Storm sewer system means the system of roads, streets, catchbasins, curbs, gutters, ditches, pipes, lakes, ponds, channels, storm drains and other facilities located within the county which are designed or used for collecting, storing or conveying stormwater or through which stormwater is collected, stored or being conveyed.

Stormwater means runoff from rain, snow or other forms of precipitation and surface runoff and drainage.

(Code 1980, § 21.1-1)

Cross references: Definitions generally, § 1-2.

Sec. 10-216. Enforcement of article; penalty.

(a) *Violations deemed misdemeanor; continuing violations; fine.* Violation of the provisions of this article shall constitute a misdemeanor. Each day that a continuing violation of this article is maintained or permitted to remain shall constitute a separate offense. Violators shall be subject to a fine not exceeding $1,000.00 or up to 30 days' imprisonment for each violation, or both.

(b) *Liability for costs for testing, containment, etc.* Any person who, intentionally or otherwise, commits any of the acts prohibited by section 10-218 shall be liable to the county for all costs of testing, containment, cleanup, abatement, removal and disposal of any substance unlawfully discharged into the storm sewer system.

(c) *Civil penalty.* Any person who commits any act prohibited by section 10-218 shall be subject to a civil penalty not to exceed $1,000.00 for each day that a violation of this article continues. The court assessing such penalties may at its discretion order such penalties to be paid into the treasury of the county for the purpose of abating, preventing or mitigating environmental pollution.

(d) *Enjoinment.* The director may bring legal action to enjoin the continuing violation of this article and the existence of any other remedy shall be no defense to any such action.

(e) *Remedies cumulative.* The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action that one or more of the remedies set forth in this section has been sought or granted.

(Code 1980, § 21.1-4)

Sec. 10-217. Inspections and monitoring.

(a) The director shall have authority to carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with the conditions of the county's VPDES permit, including the prohibition of illicit discharges to the storm sewer system. The director may monitor stormwater outfalls or other components of the storm sewer system as may be appropriate in the administration and enforcement of this article.

(b) The director shall have the authority to require pollution prevention plans from any person whose discharges cause or may cause a violation of the county's VPEDS permit.

(Code 1980, § 21.1-3)

Sec. 10-218. Discharges to storm sewer system.

(a) It shall be unlawful to:

(1) Cause or allow illicit discharges to the county's storm sewer system;

(2) Discharge materials other than stormwater to the storm sewer system by spills, dumping or disposal without a VPDES permit;

(3) Cause or allow industrial discharges into the storm sewer system without a VPDES permit; or

(4) Violate any condition or provision of this article or any permit granted for stormwater discharges.

(b) Subject to the provisions of subsection (c) of this section, the following activities shall not be unlawful as illicit discharges under this article:

(1) Water line flushing;

(2) Landscape irrigation;

(3) Diverting stream flows or raising groundwater;

(4) Infiltration of uncontaminated groundwater;

(5) Pumping of uncontaminated groundwater from potable water sources, foundation drains, irrigation waters, springs or water from crawl spaces or footing drains;

(6) Lawn watering;

(7) Individual car washing on residential properties;

(8) Dechlorinated swimming pool discharges; and

(9) Street washing.

(c) If any of the activities listed in subsection (b) of this section are found to be sources of pollutants to waters of the United States, the director shall so notify the person performing such activities and shall order that such activities be stopped or conducted in such manner as to avoid the discharge of pollutants into such waters. The failure to comply with any such order shall constitute a violation of the provisions of this article.

(Code 1980, § 21.1-2)

Sec. 10-219. Compliance with county design standards.

All stormwater management facilities, including Best Management Practices (BMPs) for water quality and quantity management, shall comply with the current edition of the Stormwater Guidelines Manual maintained by the county engineer.

(Ord. No. 972, § 1, 3-24-98)

Exhibit 2
Field Screening Standard Operating Procedure

County of Henrico
NPDES Stormwater Program

Standard Operating Procedure
Illicit Discharge Detection & Elimination (IDDE)
Field Screening

Scope:

1. NPDES Manager
2. NPDES Engineers
3. Environmental Inspectors
4. County employees filling in for any of the above

Materials:

1. Arc/GIS access
2. NPDES database access
3. SOPs for Illegal Discharge, Spill Response & Dry Weather Testing
4. Report generated from Arc/GIS
5. Materials required for procedures in 3 needed for field personnel

Procedure:

1. Access the Arc/GIS map titled “NPDES2”

2. Turn on the following Layers:

    a. County Boundary
    b. Watersheds
    c. Inspection Sites
    d. Roads & Intersections
    e. Streams 2003
    f. Streams > 100 ac drainage
    g. Storm Water Pipes
    h. Storm Water Structures
    i. Waterbodies 2003
    j. (Topography when needed)

3. Referring to both Arc/GIS and the Access database, note which areas have been screened already this Permit Cycle. Choose the area to be screened by using the industrial inspection lists in conjunction with the GIS map to choose a new site for investigation. Choose areas with multiple spill/dumping icons and industrial sites (building icons) for priority. Choosing an area that had significant cleanup required the previous year

is also a top priority. Continued investigation of these trouble areas is needed until cleanups decrease.

4. Note all pertinent information about the site:

    a. Storm sewer inlets
    b. Streams in relation to drain sites
    c. Topography
    d. Drainage outfalls
    e. Industrial areas
    f. Previous spills/overflows

5. Assign Inspection Site ID#s to the areas to be investigated to previously unassigned areas and add to database.

6. Print out a map of the area to be screened (see attached map for example) and denote inspection areas.

7. Field personnel - follow procedure for MS4 Dry Weather Testing.

Exhibit 3
Blank Outfall Inspection Report

Stormwater Outfall Inspection Report

Inspection Site ID #	**Inspection Date**	**Inspector**	**Pictures (y/n)**

Outfall Description	**End of Pipe Diameter _____** **Open Channel? Yes No** ❑ **Circular** ❑ **Elliptical** ❑ **Box** ❑ **Other _____**						**Pipe Material** ❑ **Concrete** ❑ **PVC** ❑ **Steel** ❑ **Other _____**			
Last Significant Rainfall			**Seasonal Climatic Conditions**			**Standing Water Present?**		**Mosquito Larvae Present?**		
< 2 days	> 2 days, < 5 days	> 5 days	dry	average	wet	yes	no	yes	no	n/a

Findings	Outfall Submerged? Yes No If yes, in: o Water o Fully o Partially o Sediment o Fully o Partially Debris Around Outfall o None o Sediment o Trash o Other_____ Debris in Pipe: o None o Sediment o Trash o Other_____	Flow present? Yes No Flow Volume: o Low o Moderate o Heavy o Intermittent Flow Color o Clear o Muddy o Milky/Cloudy o Sheen o Soapy Foam o Other _____ Flow Odor: o None o Petroleum o Sewage/rotten eggs o Other_____
Pipe Condition	o Good o Fair o Poor	
Describe:	_____ _____	
Receiving Stream		
Actions Taken		
Notes	_____ _____	

Exhibit 4
Selected Entries from the County's Outfall Inspection Database

Field Title	Entry Example 1	Entry Example 2	Entry Example 3	Entry Example 4	Entry Example 5
InspectionSiteID	SWO-0058	SWO-0101	SWO-0106	SWO-1454	SWO-1454
InspectionDate	1/4/2007	1/18/2007	1/18/2007	1/24/2008	5/21/2009
ActionIncidentType	Inspection	Inspection	Inspection	Inspection	Inspection
Permit Number					
Notes	Cannot reach to test, water clearly coming from National Starch in a constant flow during dry weather.	Water coming from West, slight odor and heat. Needs investigation.	Ditch runninng North/South of SWO-0101. Orange color is present, odor is bad.	Needs Cleaning, cannot see pipe due to dirt/debris	Could not find outfall, possibly buried
NeedsCleaning	FALSE	FALSE	FALSE	TRUE	FALSE
RainfallInLast24Hours					
Inspector	John Fowler	John Mulligan	John Fowler	Fowler	Fowler
SSFlowPresent					
SSDescriptionOfFlow					
SSApproxPipeSize					
SSFindings					
FPPumpSchedule					
FPHaulFrequency					
FPGreaseHauler					
FPGreaseInterceptor					
FPGreaseTrap					
FPGreaseBinBarrel					
FPFindings					
ISTypeofBusiness					
ISVehicleWash					
ISVehicleWashDischarge					
ISSpillDangerRating					
ISFlowChlorineTest					
ISPastSpills					
ISEducation					
ISFindings					
ISBulkChemicalStorage					
ISSICCode					
Recommendations					
SpillOverflowDumpingComplaintFindings					
SanitaryFindings					
Closed					
ISSourceofSpills					
ISTypeofSpills					
ISProcesses					
ISPretreatment					
ISVehicleMaintOnSite					
ISFluidDisposal					
ISMS4Site					
ISBermedChemStorage					
ISBermPrecaution					
ISChemNearStorage					
ISSWPPPIDUptodate					
ISDrainageMap					
ISMaterialInventory					
ISChemical					
ISChemLocation					
ISSARAInfo					
ISBMP					
ISGoodHousekeeping					
ISERS					
ISTraining					
ISCertification					
ISFlowPresent					
ISOutfalls					
ISStreamCondition					
ISEffluentCondition					
ISRecordKeeping					
InspectionType					
Pictures	FALSE	FALSE	FALSE	TRUE	FALSE
LastSigRainfall	> 2 days, < 5 days	> 5 days	> 5 days	> 2 days, < 5 days	> 2 days, < 5 days
SeasonalClimateCond	Wet	Normal	Normal	Wet	Normal
StandingWaterPresent	FALSE	TRUE	TRUE	FALSE	FALSE
LarvaePresent	FALSE	FALSE	FALSE	FALSE	FALSE
OutfallDebris	FALSE	FALSE	FALSE	TRUE	FALSE
PipeCrack	FALSE	FALSE	FALSE	FALSE	FALSE
PipeCavedIn	FALSE	FALSE	FALSE	TRUE	FALSE
OutfallErosion	FALSE	FALSE	FALSE	FALSE	FALSE
PipeClogged	FALSE	FALSE	FALSE	FALSE	FALSE
OutfallDryFlow	FALSE	FALSE	FALSE	FALSE	FALSE
ManholeCover	FALSE	FALSE	FALSE	FALSE	FALSE

Field Title	Entry Example 1	Entry Example 2	Entry Example 3	Entry Example 4	Entry Example 5
ManholeDryFlow	TRUE	FALSE	FALSE	FALSE	FALSE
ManholeDebris	TRUE	FALSE	FALSE	FALSE	FALSE
ManholeClogged	FALSE	FALSE	FALSE	FALSE	FALSE
Manhole #					
DitchDebris	FALSE	TRUE	FALSE	FALSE	FALSE
DitchDepth	FALSE	FALSE	FALSE	FALSE	FALSE
DitcChanneling	FALSE	FALSE	FALSE	FALSE	FALSE
DitchDryFlow	FALSE	TRUE	FALSE	FALSE	FALSE
InletDebris	FALSE	FALSE	FALSE	FALSE	FALSE
InletBlocked	TRUE	FALSE	FALSE	FALSE	FALSE
InletTrashScreen	FALSE	FALSE	FALSE	FALSE	FALSE
InletLeaking	FALSE	FALSE	FALSE	FALSE	FALSE
InletEroding	FALSE	FALSE	FALSE	FALSE	FALSE
InletDryFlow	FALSE	FALSE	FALSE	FALSE	FALSE
Fluoride Positive	FALSE	FALSE	FALSE	FALSE	FALSE
NoAccess	FALSE	FALSE	FALSE	FALSE	FALSE
Fenced	FALSE	FALSE	FALSE	FALSE	FALSE
Locked	FALSE	FALSE	FALSE	FALSE	FALSE
Other					
ResponsePhone					
ResponseEmail					
ResponseLetter					
ResondTo					
RespondDate					
Receiving Stream	Cornelius Creek				
IS#ofmanholes					
ISSWPPPUpdate					
ISStructuralControls					
ISOtherControls					
ISSpillPreventResponse					
ISWasteManagePractice					

Exhibit 5
Dry Weather Stormwater Inspection Report for SWO-0058, dated January 4, 2007

Dry Weather Stormwater Inspection Report

Inspection Site ID #	Inspection Date	Inspector	Pictures (y/n)
SWO-058	1/4/07		

Type of Inspection

- ☐ Outfall
- ☐ Manhole
- ☐ Ditch/Culvert
- ☐ Storm Water Pipe
- ☑ Inlet Structure
- ☐ Complaint (ie. Overflow, spill, etc)

Watershed # - 18 - Cornelius Creek Upper

Last Significant Rainfall			Seasonal Climatic Conditions			Standing Water Present ?		Larvae Present ?		
< 2 days	> 2 days, < 5 days	> 5 days	dry	average	wet ✓	yes	no	yes	no	n/a

Outfalls	○ Trash/sediment/lawn debris accumulation ○ Pipe cracked ○ Pipe caved in	○ Erosion/lack of outlet protection ○ Pipe clogged ○ Dry Weather Flow ○ Fluoride Positive
Manhole	○ Manhole cover missing ○ Dry Weather Flow ○ Fluoride Positive	○ Clogged line ○ Trash/sediment/lawn debris accumulation Manhole # _____
Ditch/Culvert	○ Debris/Trash accumulation ○ Depth of ditch < 1'	○ Channeling present ○ Dry Weather Flow
Inlet Structures	✓ Trash screen missing ○ Inlet blocked ✓ Debris accumulation	○ Standing water X DRY WEATHER FLOW ○ Leaking ○ Eroding/Lack of outlet protection
Access	○ no access as per plan ○ fenced ○ locked	
Other		
Receiving Stream	Cornelius Creek Upper - James River	
Notes		

Response				Response to	Response Date
phone	email	letter	not required at this time		

Exhibit 6
Dry Weather Stormwater Inspection Follow Up Documentation for SWO-0058, dated April 26, 2010

Dry Weather Stormwater Inspection Report

Inspection Site ID #	Inspection Date	Inspector	Pictures (y/n)
SWO-058	1/4/07		

Type of Inspection

- ☐ Outfall
- ☐ Manhole
- ☐ Ditch/Culvert
- ☐ Storm Water Pipe
- ☑ Inlet Structure
- ☐ Complaint (ie. Overflow, spill, etc)

Watershed # - 18 - Cornelius Creek Upper

Last Significant Rainfall			Seasonal Climatic Conditions			Standing Water Present ?		Larvae Present ?		
< 2 days	> 2 days, < 5 days	> 5 days	dry	average	wet ✓	yes	no	yes	no	n/a

Outfalls	○ Trash/sediment/lawn debris accumulation ○ Pipe cracked ○ Pipe caved in	○ Erosion/lack of outlet protection ○ Pipe clogged ○ Dry Weather Flow ○ Fluoride Positive
Manhole	○ Manhole cover missing ○ Dry Weather Flow ○ Fluoride Positive	○ Clogged line ○ Trash/sediment/lawn debris accumulation Manhole # _____
Ditch/Culvert	○ Debris/Trash accumulation ○ Depth of ditch < 1'	○ Channeling present ○ Dry Weather Flow
Inlet Structures	✓ Trash screen missing ○ Inlet blocked ✓ Debris accumulation	○ Standing water X DRY WEATHER FLOW ○ Leaking ○ Eroding/Lack of outlet protection
Access	○ no access as per plan ○ fenced ○ locked	
Other		
Receiving Stream	Cornelius Creek Upper - James River	
N		

	Response to	Response Date
phone		

Follow-up done on-site. Flow tested positive for chlorine. A hose had been left on near a drain in the back of property. 4/26/10 jrf

J

Exhibit 7
Dry Weather Stormwater Inspection Report for SWO-0101

Dry Weather Stormwater Inspection Report

Relocate to Woods

Inspection Site ID #	Inspection Date	Inspector	Pictures (y/n)
101 -			

Type of Inspection		
	☐ Outfall	☐ Inlet Structure
	☐ Manhole	☐ Complaint (ie. Overflow, spill, etc) ✓
	☐ Ditch/Culvert	Watershed # -
	☒ Storm Water Pipe	

Last Significant Rainfall			Seasonal Climatic Conditions			Standing Water Present ?		Larvae Present ?		
< 2 days	> 2 days, < 5 days	> 5 days	dry	average	wet	yes	no	yes	no	n/a

Outfalls	○ Trash/sediment/lawn debris accumulation ○ Pipe cracked ○ Pipe caved in	○ Erosion/lack of outlet protection ○ Pipe clogged ○ Dry Weather Flow ○ Fluoride Positive
Manhole	○ Manhole cover missing ○ Dry Weather Flow ○ Fluoride Positive	○ Clogged line ○ Trash/sediment/lawn debris accumulation
Ditch/Culvert	☒ Debris/Trash accumulation ○ Depth of ditch < 1'	○ Channeling present ☒ Dry Weather Flow
Inlet Structures	○ Dry Weather Flow ○ Inlet blocked ○ Debris accumulation	○ Standing water ○ Leaking ○ Eroding/Lack of outlet protection
Access	○ no access as per plan ○ fenced ○ locked	
Other		
Receiving Stream		
Notes	START to Dark	

Response				Response to	Response Date
phone	email	letter	not required at this time		

106 - Ditch N/S of 101
- Standing Water
- color
- odor

Exhibit 8
List of Facilities Subject to Stormwater Inspections

Table 1.A.c - 1

Municipal Landfill Facilities*					
Facility	Location	Discharge to MS4?	Inspection Interval	Inspection Schedule	VPDES #
Springfield Road Landfill	10620 Ford's Country Lane	Yes	5 yrs	2012	VAR51025
East End Public Use Area	2075 Charles City Rd.	Yes	5 yrs	2012	No-Exposure Certification
* Inspections required in accordance with § A.1.c of Henrico County's VPDES Permit (Permit No. VA0088617)					

Table 1.A.c - 2

Hazardous Waste Treatment, Storage and Disposal Facilities*						
Facility	Location	Discharge to MS4?	Inspection Interval	Non-Exposure	Inspection Schedule	VPDES #
Smurfit Stone – North	5700 Lewis Road	Yes	Annual	-	Q3	VAR050565
Standex Engraving	5901 Lewis Road	Yes	Annual	-	Q1	VAR051142
Dean Foods	1595 Mary St.	Yes	Annual	-	Q4	VAR050595
CSX Railroads	1 CSX Road	No	5 yrs	-	2010	VAR 051056
Ready Mix Concrete	4607 Racrete Rd.	No	5 yrs	-	2010	VAG110201
East End Landfill	1790 Darbytown	No	5 yrs	-	2010	VAR050624
Coca Cola	500 Eastpark Court	No	5 yrs	-	2012	VAR050709
US Foodservice	363 Lerch Drive	No	5 yrs	-	2010	
Dominion Va. Power	2901 Charles City	No	5 yrs	-	2010	VA0086380
BFI Charles City	2001 Charles City	No	5 yrs	-	2012	VAR0091499
Cadmus Printing	2901 Byrdhill Rd	No	5 yrs	-	2015	VAR050694
IMTT	5500 Old Osbourne Tpk	No	5 yrs	-	2015	VAR0055409
[1]Duron Paints	6564 West Broad Street	Yes	3 yrs	Confirmed	2010	
[2]Richmond Cold Storage	5501 Corrugated Road	Yes	3 yrs	Confirmed	2010	
[3]The JM Fry Company, Inc	4329 Eubank Road	Yes	3 yrs	Confirmed	2010	
[2]Reddy Ice	5361 Lewis Rd	Yes	3 yrs	Confirmed	2010	
* Inspections required in accordance with § A.1.c of Henrico County's VPDES Permit (Permit No. VA0088617)						

1 Duron has a paint spray booth, but it is located indoors. No exposure at this facility.
2 Has Ammonia cooling systems
3 JM Fry Company has copolymer resin, all located indoors.

Table 1.A.c - 3

Industrial Facilities Subject to Section 313 of the Emergency Planning and Community Right to Know Act*					
Facility	Location	Discharge to MS4?	Inspection Interval	Inspection Schedule	VPDES #
Johns Manville	7400 Ranco Rd	Yes	Annual	Q3	VAR500206
World Color	7400 Impala Drive	Yes	Annual	Q3	VAR051889
Ennis Paint	4400 Vawter Ave	Yes	Annual	Q1	VAR051550
Smurfit Stone Container – South	2900 Sprouse Drive	Yes	Annual	Q4	VAR 050570
Kraft Food	6002 S Laburnum	No	5 yrs	2010	VAR051209
* Inspections required in accordance with § A.1.c of Henrico County's VPDES Permit (Permit No. VA0088617)					

Table 1.A.c - 4

Other Facilities Determined to be Contributing Substantial Pollutant Loadings*						
Facility	Location	Discharge to MS4?	Inspection Interval	Non-Exposure	Inspection Schedule	VPDES #
Alfa Laval	5400 Intl Trade Drive	Yes	Annual		Q1	VAR051131
San-J	2880 Sprouse Drive	Yes	Annual		Q4	VAR050623
Henrico County WWTP	9101 WRVA Rd	Yes	Annual		Q1	VAR051633
Hilex Plastics	2800 Sprouse Dr	Yes	Annual		Q4	VAR051636
Rolling Frito Lay	5500 Intl Trade Drive	Yes	3 yrs	Confirmed	2011	VAR051607
Henkel	4414 Sarellen Road	Yes	3 yrs	Confirmed	2011	VAR050574
Ifco Systems	3707 Nine Mile Road	No	3 yrs		2011	VAR140081
Richmond Intl. Airport	Williamsburg Rd	No	5 yrs		2010	VA0090301
Camp Holly Springs	4100 Diamond Springs Dr	No	5 yrs		2010	VA0091197
Blakemore Construction	1401 Portugee Road	No	5 yrs		2010	VAR051024
Mechanicsville Concrete Incorporated	100 Portugee Road	No	5 yrs		2010	VAG110160
Titan Virginia Ready Mix LLC	4441 Oakleys Ln	No	5 yrs		2010	VAG110162
Mobile Concrete Company	900 Bickerstaff	No	5 yrs		2010	VAG110164
Metromont	1650 Darbytown Rd	No	5 yrs		2010	VAG110295
Gillies Creek Industrial Recycling	6650 Hines Rd	No	5 yrs		2010	VAG840212
Obrist Closure Sys	4915 Norman Road	No	5 yrs		2012	VAR050668

Exhibit 9
Springfield Landfill Inspection Report, dated July 25, 2007

County of Henrico
NPDES Stormwater Program

Checklist for Industrial User Inspections

A. General Information

Inspection Site ID	IF-0014	
Site Location	Springfield Landfill	
GPIN #	753-772-2123	
Inspector	John Fowler	
Participants	**Title**	**Phone**
Lyn Richardson	Environmental Manager	727-8774
Site Address	10620 Ford's Country Lane	
	Richmond, VA 23060	
Correspondence Address	10401 Woodman Road	
	Glen Allen, VA 23060	
Date	7/25/7	
Permit Number	VAR51025	
Rainfall in last 24 Hrs.	Yes – minimal	
SIC Code	4953	
Type of Business	Landfill	
Receiving Water(s)	Chickahominy River	
Daily Operational Hours	730-3, Public Use – 730-7	
# of Employees	20-30	

B. Industrial Processes

List the Industrial processes at the plant.

Solid Waste disposal landfill – Solvents, oils, antifreeze, batteries and standard recyclables	
Vehicle Maintenance on-site?	No
Are fluids disposed of properly (how)?	-
Are vehicles washed on site?	Washpad
If so, is wash water discharged into storm or sanitary sewer?	No

C. Chemical Storage/Possible Spill Locations

List the locations of significant materials, leaks and possible spills and identify the location:

Source	Location
Recycle area/public use	Front of landfill
Fuel Tanks	Public use area

Are chemicals stored in bermed areas?	n/a
If not bermed, what spill precautions are taken?	-
Any chemicals or trash near Storm Sewer Drains?	No
Are all potential contaminants stored under cover or in secondary containment?	Yes
Are waste bins covered with waste properly disposed in containers?	n/a
How is landscape waste stored?	Contract
How is landscape waste disposed of?	-
Is the site a MS4 Site?	Yes

D. Locations of Storm Sewer Manholes/Effluent Data

Number of Storm Sewer Manholes as per Arc/GIS	2
Number of Storm Sewer Manholes as per inspection	2
Are storm drains labeled and free of debris?	Yes
Is there any flow present in any of the manholes?	No
If there is flow, does the sample test positive for fluoride?	-
List the # of outfalls to surface waters on-site	2 BMPs on site
Condition of the effluent (clear, turbid, floating solids, foam, odor, etc)	Clear
Condition of the receiving stream (also note any upstream and downstream differences	good

Exhibit 10
Charles City Road Public Use Area Inspection Report, dated July 25, 2007

County of Henrico
NPDES Stormwater Program

Checklist for Industrial User Inspections

A. General Information

Inspection Site ID	IF-0039	
Site Location	Charles City Road Public Use Area	
GPIN #	811-709-7458	
Inspector	John Fowler	
Participants	**Title**	**Phone**
Lyn Richardson	Environmental Manager	727-8774
Site Address	2075 Charles City Road	
	Richmond, VA 23231	
Correspondence Address	10401 Woodman Road	
	Glen Allen, VA 23060	
Date	7/25/7	
Permit Number	VAR540083 – PREVIOUS permit #, DNE now	
Rainfall in last 24 Hrs.	Yes – minimal	
SIC Code	4953	
Type of Business	Landfill	
Receiving Water(s)	Almond Creek – James River	
Daily Operational Hours	8-9	
# of Employees	15	

B. Industrial Processes

List the Industrial processes at the plant.

Solid Waste transfer station – Solvent, oils, antifreeze, batteries and standard recyclables	
Vehicle Maintenance on-site?	No
Are fluids disposed of properly (how)?	-
Are vehicles washed on site?	No
If so, is wash water discharged into storm or sanitary sewer?	-

C. Chemical Storage/Possible Spill Locations

List the locations of significant materials, leaks and possible spills and identify the location:

Source	Location
Roofed Chemical Storage	Front of office
Dumpsters	NE of office
Oil container – double walled	N of office

Are chemicals stored in bermed areas?	-
If not bermed, what spill precautions are taken?	-
Any chemicals or trash near Storm Sewer Drains?	No
Are all potential contaminants stored under cover or in secondary containment?	Yes
Are waste bins covered with waste properly disposed in containers?	Yes
How is landscape waste stored?	Contracted
How is landscape waste disposed of?	-
Is the site a MS4 Site?	No

D. Locations of Storm Sewer Manholes/Effluent Data

Number of Storm Sewer Manholes as per Arc/GIS	2
Number of Storm Sewer Manholes as per inspection	2
Are storm drains labeled and free of debris?	-
Is there any flow present in any of the manholes?	No
If there is flow, does the sample test positive for fluoride?	-
List the # of outfalls to surface waters on-site	None-bmps
Condition of the effluent (clear, turbid, floating solids, foam, odor, etc)	-
Condition of the receiving stream (also note any upstream and downstream differences	-

E. Spill Prevention

Does the IU have an SWPPP on site (list date)?	No, has SPCC
When was it last updated?	Dec 2004
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	n/a
What are the structural controls employed by the facility?	Roof, double walled tanks
What non-structural controls are employed by the facility?	Clean up kits
Are the controls reasonable and appropriate for the facility?	Yes
Other control items	
Where are the control items (socks, sawdust, etc.) relative to the Storm Sewer Drains?	Near recycle area

Stormwater Pollution Prevention Plan (SWPPP)	**Y/N**	**NOTES**
Pollution prevention team identified and up-to-date?	Y	
Site map?	n/a	
Drainage patterns/outfalls?	n/a	
Material inventory?	n/a	
Information regarding Spills & Leaks?	Y	
Information addressing SARA Title II-313 Chemicals?	n/a	
Non-Storm Water Discharges?	n/a	
Best Management Practices (BMP)?	n/a	
Good Housekeeping Measures?	n/a	
Spill Prevention and Response?	Y	
Sediment erosion control and runoff?	-	
New and continued employee training?	Y	
Waste Management Practices?	Y	
Certification statement?	Y	

F. Education/Training

What type of training is offered to employees with regards to spill containment/management?	Annual
Does training involve Storm Sewer spills?	No
Are employees familiar w/ SWPPP?	-

G. Records

List record keeping procedures	3 years
List spills for the past 3 years w/ locations, amounts and steps taken to contain/eliminate/prevent MS4 infiltration	none

H. Recommendations

Clean up the wetlands to the NE of the office
Need to remove this site from the DCR inspection list as it is transfer only now.

Exhibit 11
Powhatan Ready-Mix Concrete Inspection Report, dated April 20, 2010

County of Henrico
NPDES Stormwater Program

Checklist for Industrial User Inspections

A. General Information

Inspection Site ID	IF-0018	
Site Location	Powhatan Ready Mix	
GPIN #	777-740-4801	
Inspector	John Fowler	
Participants	**Title**	**Phone**
Elwood Randolph	Plant Manager	366-7655
Jeff Garner	Area Manager	744-1472
Site Address	4608 Racrete Rd	
	Richmond, VA 23238-6220	
Correspondence Address	3501 Warboro Ave	
	Midlothian VA 23112	
Date	April 20, 2010	
Permit Number	VAG110227	
Rainfall in last 24 Hrs.	No	
SIC Code	5231	
Type of Business	Paint Manufacturer	
Receiving Water(s)	Chickahominy/Horse Swamp Creek	
Daily Operational Hours	8-5 M-F	
# of Employees	30	

B. Industrial Processes

List the Industrial processes at the plant.

Sand and stone is trucked into 4 silos. Ad mix containters contain water reducers. Mixes	
Into drum when preset mix percentages are entered. Loads into the cement trucks and is	
Delivered.	
Vehicle Maintenance on-site?	Yes, but emergency fixes only – Batteries, hoses, etc.
Are fluids disposed of properly (how)?	No fluid repair
Are vehicles washed on site?	Yes, rack system
If so, is wash water discharged into storm or sanitary sewer?	Rack system contains all runoff from wash rack.

C. Chemical Storage/Possible Spill Locations

List the locations of significant materials, leaks and possible spills and identify the location:

Source	Location
Sand	Southern side
10k gal and 500 gal diesel tanks (steel dike on 10k gal and double walled on 500g)	Eastern side

Are chemicals stored in bermed areas?	Yes
If not bermed, what spill precautions are taken?	-
Any chemicals or trash near Storm Sewer Drains?	No
Are all potential contaminants stored under cover or in secondary containment?	Yes
Are waste bins covered with waste properly disposed in containers?	Yes
How is landscape waste stored?	Outside contractor
How is landscape waste disposed of?	mulched
Is the site a MS4 Site?	No

D. Locations of Storm Sewer Manholes/Effluent Data

Number of Storm Sewer Manholes as per Arc/GIS	0
Number of Storm Sewer Manholes as per inspection	0
Are storm drains labeled and free of debris?	n/a
Is there any flow present in any of the manholes?	-
If there is flow, does the sample test positive for fluoride?	-
List the # of outfalls to surface waters on-site	1
Condition of the effluent (clear, turbid, floating solids, foam, odor, etc)	none
Condition of the receiving stream (also note any upstream and downstream differences	Good. Clear water

E. Spill Prevention

Does the IU have an SWPPP on site (list date)?	Yes – 2008
When was it last updated?	11/15/08
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	n/a
What are the structural controls employed by the facility?	Berms, silos, storage, hay bails, rip rap
What non-structural controls are employed by the facility?	Spill kits, housekeeping SOP, sweeping
Are the controls reasonable and appropriate for the facility?	Yes
Other control items	Outfall area is cleaned on an as-needed basis. 11/09 was the last cleaning.
Where are the control items (socks, sawdust, etc.) relative to the Storm Sewer Drains?	Near Office – need to be moved

Stormwater Pollution Prevention Plan (SWPPP)	**Y/N**	**NOTES**
Pollution prevention team identified and up-to-date?	**Y**	
Site map?	**Y**	
Drainage patterns/outfalls?	**Y**	
Material inventory?	**Y**	
Information regarding Spills & Leaks?	**Y**	
Information addressing SARA Title II-313 Chemicals?	**n/a**	
Non-Storm Water Discharges?	**Y**	
Best Management Practices (BMP)?	**Y**	
Good Housekeeping Measures?	**Y**	
Spill Prevention and Response?	**Y**	
Sediment erosion control and runoff?	**Y**	
New and continued employee training?	**Y**	
Waste Management Practices?	**Y**	
Certification statement?	**Y**	

F. Education/Training

What type of training is offered to employees with regards to spill containment/management?	Video, SPCC, good housekeeping
Does training involve Storm Sewer spills?	Yes
Are employees familiar w/ SWPPP?	Yes

G. Records

List record keeping procedures	5+ years
List spills for the past 3 years w/ locations, amounts and steps taken to contain/eliminate/prevent MS4 infiltration	None

H. Recommendations

Please move your spill kit to within reach of the diesel fuel tanks.
Please clean the concrete ditch behind the fuel tanks.

Exhibit 12
Alfa Laval Inspection Report, dated April 20, 2010

County of Henrico
NPDES Stormwater Program

Checklist for Industrial User Inspections

A. General Information

Inspection Site ID	IF – 0002	
Site Location	Alfa Laval	
GPIN #	818-718-5133	
Inspector	John Fowler	
Participants	**Title**	**Phone**
George Karalus	EH&S Coordinator	804-236-1390
Site Address	5400 International Trade Drive	
	Richmond, VA 23231	
Correspondence Address	As above	
Date	4/20/10	
Permit Number	VAR051131	
Rainfall in last 24 Hrs.	No	
SIC Code	3494	
Type of Business	Heat Exchanger Manufacturer	
Receiving Water(s)	Gillie Creek	
Daily Operational Hours	16/5	
# of Employees	250+/-	

B. Industrial Processes

List the Industrial processes at the plant.

Bring in metal sheets/plates that are pre-pressed or unpressed. Press the unpressed by machine. Then they are cleaned, gasketed & assembled into a unit. Frame plates can be dulled, sandblasted & painted. Hydrostatic testing is performed on complete units.	
Vehicle Maintenance on-site?	Forklift repair only.
Are fluids disposed of properly?	3-4 collection points for fluids – under canopy. FCC Environmental picks up oil, antifreeze, pig mats, filters and oily water.

C. Chemical Storage/Possible Spill Locations

List the locations of significant materials, leaks and possible spills and identify the location:

Source	Location
Oils from metal cutting/shaping	Under SW canopy in 55 gallon drums on spill containment pallets.
Rolloff dumpsters for scrap metal	Under SW canopy. Dumpsters are tilted with a catch basin to drain any leftover oil off of trash metals.
Carbon steel raw mats	Back Dock

Are chemicals stored in bermed areas?	Yes
If not bermed, what spill precautions are taken?	
Any chemicals or trash near Storm Sewer Drains?	Dumpsters only
Is the site a MS4 Site?	Yes
If the Stormwater discharge enters a MS4 to surface waters, has the owner been notified of the system?	Yes

D. Locations of Storm Sewer Manholes/Effluent Data

Number of Storm Sewer Manholes as per Arc/GIS	5
Number of Storm Sewer Manholes as per inspection	15, has been construction
Is there any flow present in any of the manholes?	No
If there is flow, does the sample test positive for fluorine?	N/A
List the # of outfalls to surface waters on-site	1
Condition of the effluent (clear, turbid, floating solids, foam, odor, etc)	Clear
Condition of the receiving stream (also note any upstream and downstream differences	Good

E. Spill Prevention

Does the IU have an SWPPP on site (list date)?	Yes – 1/1/4 – 6/30/9
When was it last updated?	8/5/7 – in process
Did all operators & co-permitees sign the SWPPP?	Yes
Does it contain Storm Sewer spill contentions?	Yes
Does the facility have a Slug Control Plan?	Yes
What are the structural controls employed by the facility?	BMP, trench drains, oil troughs, O/W seperators
What non-structural controls are employed by the facility?	Pigs in trench drains, containment blocks. Extra floating boom in BMP around entrance.
Are the controls reasonable and appropriate for the facility?	Yes
Other control items	
Where are the control items (socks, sawdust, etc.) relative to the Storm Sewer Drains?	< 50’

Stormwater Pollution Prevention Plan (SWPPP)	**Y/N**	**NOTES**
Pollution prevention team identified and up-to-date?	**Y**	Maint & Shipping
Site map?	**Y**	
Drainage patterns/outfalls?	**Y**	
Material inventory?	**N/A**	Outside storage consists only of metal plates
Information regarding Spills & Leaks?	**Y**	
Information addressing SARA Title II-313 Chemicals?	**N/A**	Not a SARA location
Non-Storm Water Discharges?	**Y**	
Best Management Practices (BMP)?	**Y**	
Good Housekeeping Measures?	**Y**	New method for cleaning up iron filings of nuts & bolts was developed
Spill Prevention and Response?	**Y**	
Sediment erosion control and runoff?	**Y**	
New and continued employee training?	**Y**	
Certification statement?	**Y**	

F. Education/Training

What type of training is offered to employees with regards to spill containment/management?	Monthly testing/training, also implementing new SW training for maint/shipping dept. New SWPPP + SPCC training.
Does training involve Storm Sewer spills?	Yes
Are employees familiar w/ SWPPP?	Employees know of it, new training program will educate them further with regards to the SWPPP

G. Records

List record keeping procedures	Spill history form in SWPPP. FCC Enviro manifest records kept in separate file in George's office 3 yrs.
List spills for the past 3 years w/ locations, amounts and steps taken to contain/eliminate/prevent MS4 infiltration	3/12/07 – hydraulic oil 2-3 gal. 7/24/06 – coolant/oily water 3 gallons

H. Recommendations

Site is in compliance with their stormwater permit. There are a few drums located in the
Metal storage area. If work is occurring, make sure to have the area corded off and note
That work is being done. Also, cleaning of the trash racks is needed.

Signatory Page for Stormwater Inspection

This is to certify that the information herein is accurate and true to the best of my knowledge. If there are any issues denoted in this inspection report which need to be addressed in order to come into compliance with either the Virginia Pollutant Discharge Elimination System permit for this location, or to satisfy the requirements of the County of Henrico, then every effort will be made to correct said issues with due diligence. Once those issues have been addressed, written notification will be given to the County of Henrico documenting the completion of the needed corrections.

Permit Representative: Date:

_____ _____

County of Henrico Representative: Date:

_____ _____

Exhibit 13
Ennis Paints Inspection Report, dated April 20, 2010

County of Henrico
NPDES Stormwater Program

Checklist for Industrial User Inspections

A. General Information

Inspection Site ID	IF-0077	
Site Location	Ennis Paints	
GPIN #	799-739-2764	
Inspector	John Fowler	
Participants	**Title**	**Phone**
DeMarco Doxie	EHS Manager	404-414-6818
Email – demarco.doxie@	Ennispaint.net	
Site Address	4400 Vawter Ave	
	Richmond, VA 23222-1406	
Correspondence Address	1855 Plymouth Rd. NW	
	Atlanta, GA 30318	
Date	April 20, 2010	
Permit Number	VAR051550	
Rainfall in last 24 Hrs.	No	
SIC Code	5231	
Type of Business	Paint Manufacturer	
Receiving Water(s)	Chickahominy/Horse Swamp Creek	
Daily Operational Hours	8-5 M-F	
# of Employees	30	

B. Industrial Processes

List the Industrial processes at the plant.

Make water-based traffic paint & thermoplastic pigments. Mixing process is main process.	
Vehicle Maintenance on-site?	No
Are fluids disposed of properly (how)?	-
Are vehicles washed on site?	No
If so, is wash water discharged into storm or sanitary sewer?	-

C. Chemical Storage/Possible Spill Locations

List the locations of significant materials, leaks and possible spills and identify the location:

Source	Location
Totes of Paint	All over property
SWPPP Appendix B for material inventory	

Are chemicals stored in bermed areas?	Yes
If not bermed, what spill precautions are taken?	None
Any chemicals or trash near Storm Sewer Drains?	No
Are all potential contaminants stored under cover or in secondary containment?	Yes
Are waste bins covered with waste properly disposed in containers?	Not covered
How is landscape waste stored?	Outside contractor
How is landscape waste disposed of?	-
Is the site a MS4 Site?	Yes

D. Locations of Storm Sewer Manholes/Effluent Data

Number of Storm Sewer Manholes as per Arc/GIS	0
Number of Storm Sewer Manholes as per inspection	3
Are storm drains labeled and free of debris?	n/a
Is there any flow present in any of the manholes?	-
If there is flow, does the sample test positive for fluoride?	-
List the # of outfalls to surface waters on-site	~2 (ditchs)
Condition of the effluent (clear, turbid, floating solids, foam, odor, etc)	none
Condition of the receiving stream (also note any upstream and downstream differences	Good. Clear water

E. Spill Prevention

Does the IU have an SWPPP on site (list date)?	Yes – 2006
When was it last updated?	2006 (in process of updating)
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	Inside storage of haz mat.
What are the structural controls employed by the facility?	Berms around tank storage farm
What non-structural controls are employed by the facility?	Spill kits, socks, absorbent
Are the controls reasonable and appropriate for the facility?	yes
Other control items	-
Where are the control items (socks, sawdust, etc.) relative to the Storm Sewer Drains?	Maintenance Shop

Stormwater Pollution Prevention Plan (SWPPP)	**Y/N**	**NOTES**
Pollution prevention team identified and up-to-date?	**Y**	
Site map?	**Y**	Changing due to new POD
Drainage patterns/outfalls?	**Y**	
Material inventory?	**Y**	
Information regarding Spills & Leaks?	**Y**	
Information addressing SARA Title II-313 Chemicals?	**Y**	Appendix C
Non-Storm Water Discharges?	**Y**	
Best Management Practices (BMP)?	**Y**	Many changes have been made to the BMP's. The facility reflects this.
Good Housekeeping Measures?	**Y**	Facility in much better condition this year. GH measures evident in practice
Spill Prevention and Response?	**Y**	
Sediment erosion control and runoff?	**Y**	Silt fence needs anchoring in one small area.
New and continued employee training?	**Y**	Training program fledgling.
Waste Management Practices?	**Y**	
Certification statement?	Y	

F. Education/Training

What type of training is offered to employees with regards to spill containment/management?	DeMarco is formulating a spill response team and a new training program
Does training involve Storm Sewer spills?	It will, yes
Are employees familiar w/ SWPPP?	Maintenance & shipping personnel are

G. Records

List record keeping procedures	3 years -
List spills for the past 3 years w/ locations, amounts and steps taken to contain/eliminate/prevent MS4 infiltration	Spills are kept on a clipboard on the bulletin board in the conference room.

H. Recommendations

Information in the SWPPP needs to be current and accurate – this is being updated. Once the update is complete, please send me a digital copy @ fow@co.henrico.va.us. This should be accomplished in the next 90 days.

Exhibit 14
Ennis Paints Inspection Report, dated March 3, 2010

County of Henrico
NPDES Stormwater Program

Checklist for Industrial User Inspections

A. General Information

Inspection Site ID	IF-0077	
Site Location	Ennis Paints	
GPIN #	799-739-2764	
Inspector	John Fowler	
Participants	**Title**	**Phone**
DeMarco Doxie	EHS Manager	770-570-8657
Email – demarco.doxie@	Ennispaint.net	
Site Address	4400 Vawter Ave	
	Richmond, VA 23222-1406	
Correspondence Address	1855 Plymouth Rd. NW	
	Atlanta, GA 30318	
Date	March 3, 2010	
Permit Number	VAR051550	
Rainfall in last 24 Hrs.	No	
SIC Code	5231?	
Type of Business	Paint Manufacturer	
Receiving Water(s)	Chickahominy/Horse Swamp Creek	
Daily Operational Hours	8-5 M-F	
# of Employees	30	

B. Industrial Processes

List the Industrial processes at the plant.

Make water-based traffic paint & thermoplastic pigments. Mixing process is main process.	
Vehicle Maintenance on-site?	No
Are fluids disposed of properly (how)?	-
Are vehicles washed on site?	No
If so, is wash water discharged into storm or sanitary sewer?	-

C. Chemical Storage/Possible Spill Locations

List the locations of significant materials, leaks and possible spills and identify the location:

Source	Location
Totes of Paint	All over property
SWPPP Appendix B for material inventory	

Are chemicals stored in bermed areas?	Yes
If not bermed, what spill precautions are taken?	None
Any chemicals or trash near Storm Sewer Drains?	No
Are all potential contaminants stored under cover or in secondary containment?	Yes
Are waste bins covered with waste properly disposed in containers?	Not covered
How is landscape waste stored?	Outside contractor
How is landscape waste disposed of?	-
Is the site a MS4 Site?	Yes

D. Locations of Storm Sewer Manholes/Effluent Data

Number of Storm Sewer Manholes as per Arc/GIS	0
Number of Storm Sewer Manholes as per inspection	3
Are storm drains labeled and free of debris?	n/a
Is there any flow present in any of the manholes?	-
If there is flow, does the sample test positive for fluoride?	-
List the # of outfalls to surface waters on-site	~2 (ditchs)
Condition of the effluent (clear, turbid, floating solids, foam, odor, etc)	none
Condition of the receiving stream (also note any upstream and downstream differences	Good. Clear water

E. Spill Prevention

Does the IU have an SWPPP on site (list date)?	Yes – 2006
When was it last updated?	2006 (in process of updating)
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	Inside storage of haz mat.
What are the structural controls employed by the facility?	Berms around tank storage farm
What non-structural controls are employed by the facility?	Spill kits, socks, absorbent
Are the controls reasonable and appropriate for the facility?	No
Other control items	-
Where are the control items (socks, sawdust, etc.) relative to the Storm Sewer Drains?	Maintenance Shop

Stormwater Pollution Prevention Plan (SWPPP)	**Y/N**	**NOTES**
Pollution prevention team identified and up-to-date?	**Y**	
Site map?	**Y**	Changing due to new POD
Drainage patterns/outfalls?	**Y**	
Material inventory?	**Y**	
Information regarding Spills & Leaks?	**Y**	
Information addressing SARA Title II-313 Chemicals?	**Y**	Appendix C
Non-Storm Water Discharges?	**Y**	
Best Management Practices (BMP)?	**Y**	Many changes have been made to the BMP's. The facility reflects this.
Good Housekeeping Measures?	**Y**	Facility in much better condition this year. GH measures evident in practice
Spill Prevention and Response?	**Y**	
Sediment erosion control and runoff?	**Y**	Silt fence needs anchoring in one small area.
New and continued employee training?	**Y**	Training program fledgling.
Waste Management Practices?	**Y**	
Certification statement?	Y	

F. Education/Training

What type of training is offered to employees with regards to spill containment/management?	DeMarco is formulating a spill response team and a new training program
Does training involve Storm Sewer spills?	It will, yes
Are employees familiar w/ SWPPP?	No

G. Records

List record keeping procedures	3 years -
List spills for the past 3 years w/ locations, amounts and steps taken to contain/eliminate/prevent MS4 infiltration	Spills are kept on a clipboard on the bulletin board in the conference room.

H. Recommendations

E&S – Looks 100% better than last visit. POD was approved and cement pad is now back
from the SPA. New drainage outfalls and the BMP have improved the storm water collection on the site 10-fold.
Information in the SWPPP needs to be current and accurate – this is being updated. Please Inform me when this is complete.
Housekeeping has done a 180* at this site. Previously the site was littered with debris, but
only wind-blown debris was in any evidence this inspection.

Signatory Page for Stormwater Inspection

This is to certify that the information herein is accurate and true to the best of my knowledge. If there are any issues denoted in this inspection report which need to be addressed in order to come into compliance with either the Virginia Pollutant Discharge Elimination System permit for this location, or to satisfy the requirements of the County of Henrico, then every effort will be made to correct said issues with due diligence. Once those issues have been addressed, written notification will be given to the County of Henrico documenting the completion of the needed corrections.

Permit Representative: _____ Date: 3/3/2010

County of Henrico Representative: _____ Date: 3/3/10

Exhibit 15
The Virginia Erosion and Sediment Control Regulations, 4VAC50-30-20, Purpose.

04/28/10 prev | next

4VAC50-30-20. Purpose.

The purpose of this chapter is to form the basis for the administration, implementation and enforcement of the Act. The intent of this chapter is to establish the framework for compliance with the Act while at the same time providing flexibility for innovative solutions to erosion and sediment control concerns.

Statutory Authority

§§ 10.1-502 and 10.1-561 of the Code of Virginia.

Historical Notes

Derived from VR625-02-00 § 2, eff. September 13, 1990; amended, Virginia Register Volume 11, Issue 11, eff. March 22, 1995.

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Exhibit 16
County *Erosion and Sediment Control Inspection Report* for the Dominion West End Site Renovations construction site, dated December 29, 2009

County of Henrico
Department of Public Works
Engineering and Environmental Services Division (EESD)

04/19/10 SC

EROSION AND SEDIMENT CONTROL INSPECTION REPORT

Project: Dominion West End Site Renovations

Date: 12/29/2009 **Time:** 4:30 **POD#:** 53-87 **DPW#:**

Stage of Construction: ☐ Pre-Construction Conference ☐ Rough Grading ☐ Finish Grading ☒ Clearing and Grubbing ☐ Building Construction ☐ Final Stabilization

An erosion and sediment control inspection was conducted at the above referenced project, and the following deficiencies were found. These deficiencies must be corrected (within) see below (☐ **days** ☐ hours), upon receipt of this notice.

- ☐ Construction Entrance (3.02)
- ☐ Silt Fence (3.05)
- ☐ Storm Drain Inlet Protection (3.07)
- ☐ Culvert Inlet Protection (3.08)
- ☐ Diversion Dike (3.09)
- ☐ Sediment Trap (3.13)
- ☐ Sediment Basin (3.14)
- ☐ Wetland / RPA / SPA Tape and/or Fence
- ☐ Land Disturbance outside of approved limits
- ☐ Other: _____
- ☐ Stormwater Conveyance Channel (3.17)
- ☐ Outlet Protection (3.18)
- ☐ Riprap (3.19)
- ☐ Rock Check Dams (3.20)
- ☐ Level Spreader (3.21)
- ☐ Temporary Stream Crossing (3.24 / 3.25)
- ☐ Soil Stabilization Blankets and Matting (3.36)
- ☐ Environmental Protection Area Signs
- ☐ Responsible Land Disturber Reports
- ☐ Temporary Seeding (3.31)
- ☐ Permanent Seeding (3.32)
- ☐ Dust Control (3.39)
- ☐ Mud Tracking
- ☒ Sequence of Construction

Comments: A detailed sequence for the construction of the detention basin must be submitted and approved before any land disturbance in the area of the detention basin may occur.

☐ An erosion and sediment control inspection was conducted at the above referenced project and no deficiencies were found.

If you have any questions, or need additional information, please contact Olivia Hall at (804) 727-8322

A COPY OF THIS INSPECTION REPORT WAS:

- ☐ mailed to: _____
- ☒ emailed to: _____
- ☐ faxed to: _____
- ☐ left with: _____
- ☐ at the construction trailer

Exhibit 17
County *Erosion and Sediment Control Inspection Report* and *Notice to Comply* for the West Area Middle School No. 1 construction site, dated April 20, 2010

County of Henrico
Department of Public Works
Engineering and Environmental Services Division (EESD)

04/20/10

EROSION AND SEDIMENT CONTROL INSPECTION REPORT

Project: West Area Middle School No. 1

Date: 4/20/2010 **Time:** 3:00 **POD#:** _____ **DPW#:** _____

Stage of Construction: ☐ Pre-Construction Conference ☒ Rough Grading ☒ Finish Grading ☐ Clearing and Grubbing ☒ Building Construction ☐ Final Stabilization

An erosion and sediment control inspection was conducted at the above referenced project, and the following deficiencies were found. These deficiencies must be corrected (within) see below (☒**days** ☐hours), upon receipt of this notice.

- ☐ Construction Entrance (3.02)
- ☒ Silt Fence (3.05)
- ☒ Storm Drain Inlet Protection (3.07)
- ☐ Culvert Inlet Protection (3.08)
- ☐ Diversion Dike (3.09)
- ☐ Sediment Trap (3.13)
- ☐ Sediment Basin (3.14)
- ☒ Wetland / RPA / SPA Tape and/or Fence
- ☐ Land Disturbance outside of approved limits
- ☐ Stormwater Conveyance Channel (3.17)
- ☐ Outlet Protection (3.18)
- ☐ Riprap (3.19)
- ☐ Rock Check Dams (3.20)
- ☐ Level Spreader (3.21)
- ☐ Temporary Stream Crossing (3.24 / 3.25)
- ☒ Soil Stabilization Blankets and Matting (3.36)
- ☐ Environmental Protection Area Signs
- ☐ Responsible Land Disturber Reports
- ☒ Temporary Seeding (3.31)
- ☐ Permanent Seeding (3.32)
- ☐ Dust Control (3.39)
- ☐ Mud Tracking
- ☐ Sequence of Construction
- ☐ Other: _____

Comments: Work to correct the following E&S deficiencies must begin within 2 days and pursued to completion within 7 days (excluding weekends). As you enter the project the slope on the right of the construction entrance must be stabilized with vegetation. Silt fence must be installed at the toe of this slope and curve up the slope at the end closest to the street to prevent sediment from escaping around the silt fence. The wetland tape must be put back up where down. Drop inlet protection is incorrect. Please install drop inlet protection according to the spec shown on page 2.4. Drop inlet protection must be installed at inlet #'s T7 and 43. Rills are eroding in areas leading toward drop inlets. These areas must be stabilized with matting. Seeding is needed in areas surrounding trees that were recently installed. The silt fence that was removed surrounding the fill slope around the track must be re-installed. This fill slope is eroding. The eroded areas must be repaired and second seeding attempt made with blanket matting. In the area where the former diversion carrying runoff to sediment basin # 2, wire backed silt fence must be installed to handle the runoff from the fill slope. Silt fence must be installed around the stockpile. The area surrounding the outfall pipe for sediment basin # 1 is eroding. Please repair this and stabilize this area with vegetation. Regarding the sanitary sewer easement with wetland impacts...re-install the silt fence in this area and stabilize this area with vegetation. Install a row of silt fence at the beginning of this wetland impact to slow down runoff in this area. Blanket matting and stabilization is needed in the area from structure # R12-R16. This slope and area must be stabilized with vegetation. Curb inlet protection must be the correct size for the inlet it is used on. The slope above the tennis court needs stabilization with blanket matting and vegetation. Stabilize the area around the tennis court with vegetation. The silt fence surrounding the baseball field needs to be replaced in some areas.

☐ An erosion and sediment control inspection was conducted at the above referenced project and no deficiencies were found.

If you have any questions, or need additional information, please contact Olivia Hall at (804) 727-8322

A COPY OF THIS INSPECTION REPORT WAS:

- ☐ mailed to: _____
- ☐ emailed to: _____
- ☒ faxed to: Chris Evans
- ☐ left with: _____
- ☐ at the construction trailer

Henrico County
Department of Public Works
ENGINEERING AND ENVIRONMENTAL SERVICES DIVISION (EESD)

NOTICE TO COMPLY

TO: Chris Evans DATE: 4/20/2010 TIME: 2:46

FIRM: Southwood Builders, Inc. PROJECT West Area Middle School No. 1

LOCATION: 5601 Shady Grove Road

An inspection was made on 4/20/2010. It was found that the erosion and sediment controls with respect to the following item or items were not in compliance with the approved plan. It is required that the item or items be corrected (within) immediately excluding Saturdays, Sundays and holidays, upon receipt of this notice. Failure to comply will result in a Stop Work Order requiring all land disturbing activity to cease within the project limits and/or additional enforcement action(s) necessary to have the deficiencies corrected.

If you have any questions or need additional information, call Olivia Hall at (804) 727-8322.

- ☐ Construction Entrance (3.02)
- ☐ Silt Fence (3.05)
- ☐ Storm Drain Inlet Protection (3.07)
- ☐ Culvert Inlet Protection (3.08)
- ☐ Diversion Dike (3.09)
- ☒ Sediment Trap (3.13)
- ☐ Sediment Basin (3.14)
- ☐ Wetland / RPA / SPA Tape and/or Fence
- ☐ Land Disturbance outside of approved limits
- ☐ Other _____
- ☐ Stormwater Conveyance Channel (3.17)
- ☐ Outlet Protection (3.18)
- ☐ Riprap (3.19)
- ☐ Rock Check Dams (3.20)
- ☐ Level Spreader (3.21)
- ☐ Temporary Stream Crossing (3.24 / 3.25)
- ☐ Soil Stabilization Blankets and Matting (3.36)
- ☐ Environmental Protection Area Signs
- ☐ Responsible Land Disturber Reports
- ☐ Temporary Seeding (3.31)
- ☐ Permanent Seeding (3.32)
- ☐ Dust Control (3.39)
- ☐ Mud Tracking
- ☒ Sequence of Construction

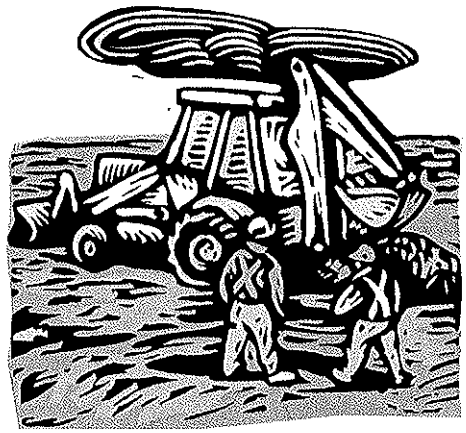
Comments: The project is currently out of sequence. Please have an engineer email a drawing, showing a sediment trap that is sized for the drainage area in the former location of sediment basin #2 and the surrounding fill slope draining to this area. The drawing should include the typical design chart for sediment traps which shows size, elevations, outlet length.,etc. Diversions must also be shown to carry the runoff to the trap. Installation of the trap and diversions must begin immediately and pursued until completion. The sediment trap outlet must be long enough to carry runoff treated by the sediment trap to the curb inlet located behind this area. Fabric may be used at the end of the rock outlet as a non-erodible conveyance to the curb inlet. The fabric must be firmly stapled. The drawing for the sediment trap may be emailed to Mike Hackett at hac02@co.henrico.va.us.

_____
SIGNATURE OF PERSON RECEIVING NOTICE

Olivia Hall
ENVIRONMENTAL INSPECTOR

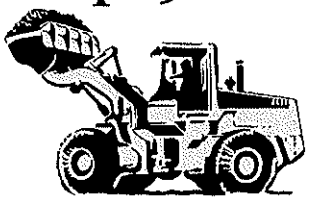
Exhibit 18
Advertisement and syllabus for the Henrico County *Site Contractor Workshop*, conducted on November 7, 2002

Site Contractor Workshop
Thursday November 7, 2002



Henrico County Public Works
West End Depot – Training Room
10431 Woodman Road
Glen Allen, Virginia

Coffee and Registration at 8:30 am
Workshop: 9 am – 1 pm



Workshop is FREE
Lunch Included!

REGISTER BY NOVEMBER 1, 2002
Contact Christine Breddy, Public Works, 501-4168
for more information or to register.

Who Should Attend: Land Disturbing Contractors, Utility Contractors, Foremen, Site Supervisors, Construction Managers, Project Managers, Responsible Land Disturbers (RLDs)

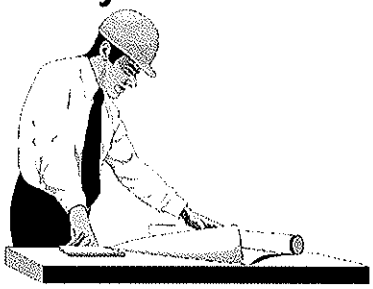
TOPICS TO BE COVERED

New Responsible Land Disturber Program Requirements
Reducing and Preventing Notices to Comply
Installation and Maintenance of E&S Measures
Sediment Basin Failure and Prevention
Role of BMPs in Protection of Water Quality
BMP Inspection and Acceptance Criteria
Wetland Regulations Affecting Site Contractors
Litter and NPS Pollution Control on Construction Sites
West Nile and Construction Sites
Contractor Open Discussion with Inspectors

This workshop is funded, in part, by the Virginia Department of Conservation and Recreation Mini-Grant Program and Henrico County

Special Thanks to the Richmond Area Municipal Contractors Association

Henrico County Contractor Workshop



November 7, 2002
9 a.m. –1 p.m.
Public Works West End Depot
10431 Woodman Road
Glen Allen, Virginia

8:30 a.m. – 9:00 a.m.
Registration & Coffee

9:00 a.m.

Introduction Goals, why we are here Introduction of staff	Jeff Perry, Environmental Management Engineer
Responsible Land Disturber Program	John Newton, Environmental Inspector
E&S Sequence: **Reducing and Preventing Notices to Comply**	Mike Hackett, Sr. Environmental Inspector
Proper Installation and Maintenance of Frequently Used ESC Measures	John Newton, Environmental Inspector
BREAK (Refreshments)	
Sediment Basins & Reasons for Failure	Terry Ruhlen, Environmental Inspector
BMP Construction BMP Types, Role of BMPs in Water Quality BMP Inspection and Acceptance Criteria	Scott Jackson, Environmental Engineer
Wetland Rules Affecting Site Contractors	Robin Wilder, Water Quality Research Analyst
Litter and Non Point Source (NPS) Pollution Control on Construction Sites	Robin Wilder, Water Quality Research Analyst
West Nile and Construction Sites	Keith White, Environmental Engineer
Wrap Up	Jeff Perry, Environmental Management Engineer

LUNCH SERVED

This workshop has been funded, in part, by the Virginia Department of Conservation and Recreation Mini-Grant Program and Henrico County.

Special Thank You to the Richmond Area Municipal Contractors Association.

Henrico Water Plant	10111 Three Chopt	No	5 yrs		2014	VAR0091197
Pepsi Cola	3008 Mechanicsville Tnpk	No	5 yrs		2014	VAR051202
Vulcan Materials (Tidewater Quarries)	11460 Staples Mill Rd	No	5 yrs		2015	VA0058041
In addition to the sites listed here, 200 Food Service Establishments were inspected in 2009. The amount of establishments inspected each year varies as locations come on and off of the list periodically. Each year's Annual Report will contain the sites that are inspected.						
* Inspections required in accordance with § A.1.c of Henrico County's VPDES Permit (Permit No. VA0088617)						

E. Spill Prevention

Does the IU have an SWPPP on site (list date)?	Yes – April 2002
When was it last updated?	July 2005
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	n/a
What are the structural controls employed by the facility?	Sediment basins/traps, SWM basins (BMPs) silt fence
What non-structural controls are employed by the facility?	Seeding, mulching, grassed waterways, vegetation
Are the controls reasonable and appropriate for the facility?	Yes
Other control items	
Where are the control items (socks, sawdust, etc.) relative to the Storm Sewer Drains?	@ the fuel tank

Stormwater Pollution Prevention Plan (SWPPP)	**Y/N**	**NOTES**
Pollution prevention team identified and up-to-date?	Y	
Site map?	N	Need one
Drainage patterns/outfalls?	N	Need on Site Map
Material inventory?	Y	
Information regarding Spills & Leaks?	Y	
Information addressing SARA Title II-313 Chemicals?	n/a	
Non-Storm Water Discharges?	Y	
Best Management Practices (BMP)?	Y	
Good Housekeeping Measures?	Y	
Spill Prevention and Response?	Y	
Sediment erosion control and runoff?	Y	
New and continued employee training?	Y	
Waste Management Practices?	Y	
Certification statement?	Y	

F. Education/Training

What type of training is offered to employees with regards to spill containment/management?	Monthly and annual
Does training involve Storm Sewer spills?	Yes
Are employees familiar w/ SWPPP?	Yes

G. Records

List record keeping procedures	3 years
List spills for the past 3 years w/ locations, amounts and steps taken to contain/eliminate/prevent MS4 infiltration	None

H. Recommendations

Site map needs to show drainage and outfalls, not present in SWPPP.

Attachment 4
Photograph Log

Photograph 1. Central Automotive Maintenance – Outdoor waste oil storage tanks without interstitial leak detection or secondary containment

Photograph 2. Central Automotive Maintenance – Drums stored outside

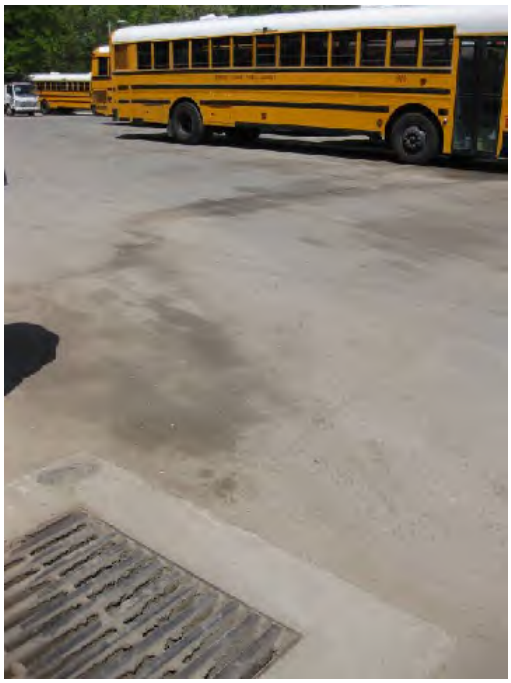
Photograph 3. Central Automotive Maintenance – Tanks located outside

Photograph 4. Central Automotive Maintenance – Uncovered dumpsters

Photograph 5. **Central Automotive Maintenance – Oil spill stain near small vehicle maintenance building**

Photograph 6. **Central Automotive Maintenance – Oil spill stain near front of large vehicle maintenance building**

Photograph 7. Central Automotive Maintenance – Oil spill stain near storm sewer inlet in parking lot



Photograph 8. Central Automotive Maintenance – Oil spill stains between school bus and storm sewer inlet in parking lot

Photograph 9. Salt Storage Area – Stains along banks of retention pond

Photograph 10. Salt Storage Area – Close up of stains along banks of retention pond

Photograph 11. Salt Storage Area – Compromised silt fence between pond and wetland

Photograph 12. Salt Storage Area – Algae in swale near retention pond

Photograph 13. Salt Storage Area – Dead vegetation around swale near back of facility

Photograph 14. Salt Storage Area – Uncovered and uncontained stone stockpile

Photograph 15. Salt Storage Area – Uncovered and uncontained dirt stockpile

Photograph 16. Salt Storage Area – Large debris, metal and trash on site

Photograph 17. **West Area Middle School No. 1 – View of solid waste container in the eastern portion of the site**

Photograph 18. **West Area Middle School No. 1 – Close-up view inside solid waste container shown in previous photograph**

Photograph 19. West Area Middle School No. 1 – View of wetted area leading toward a down-gradient storm drain inlet

Photograph 20. West Area Middle School No. 1 – Drum of form release oil in southern portion of site without overhead coverage or secondary containment

Photograph 21. West Area Middle School No. 1 – Open container of duct sealer with residual product inside

Photograph 22. West Area Middle School No. 1 – View of construction worker washing out paint brushes and equipment onto the ground surface

Photograph 23. **West Area Middle School No. 1 – Vantage point photograph of area where concrete washing activity was observed**

Photograph 24. **West Area Middle School No. 1 – Close-up view of concrete washing activity**

Photograph 25. **West Area Middle School No. 1 – Pallets of soil amendments stored outdoors without overhead coverage**

Photograph 26. **West Area Middle School No. 1 – View of chute on ready-mix truck**

Photograph 27. **West Area Middle School No. 1 – Area below chute where concrete wash water was released to the ground**

Photograph 28. **West Area Middle School No. 1 – View of concrete waste and wash water**

Photograph 29. West Area Middle School No. 1 – Concrete waste on ground in an area adjacent to the previous photograph

Attachment 3 - 303(d) Listed Segments with an approved TMDL

TMDL Report	EPA Approval Date	SWCB Approval Date	TMDL Watershed	Cause	Use Description	Pollutant	WLA[1]	WLA Units	The WLA is aggregated between the Henrico County MS4 and these MS4 permittees:
Benthic TMDL Development, Chickahominy River, VA	11/7/2013	3/28/2014	Chickahominy River	Benthic-Macroinvertebrate Bioassessments	Aquatic Life Use	Sediment	202.68	tons/year	VDOT MS4 (VAR040115)
E. coli TMDL Development for Chickahominy River and Tributaries, VA (A Nested TMDL Approach)	9/19/2012	3/25/2013	Chickahominy River and Tributaries	E. coli	Recreation	Escherichia coli	1.04E+11	cfu/year	VDOT MS4 (VAR040115)
Bacteria TMDL for Fourmile Creek, Henrico County, Virginia	9/20/2004	7/31/2008	Bailey Creek portion of Fourmile Creek Watershed	E. coli	Recreation	Escherichia coli	3.99E+10	cfu/year	
Bacteria TMDL for Tuckahoe Creek, Little Tuckahoe Creek, Anderson, Broad, Georges and Readers Branches, and Deep Run, Henrico, Goochland and Hanover Counties, Virginia	9/20/2004	7/31/2008	Tuckahoe Creek and Tributaries	E. coli	Recreation	Escherichia coli	1.05E+13	cfu/year	
Bacteria TMDL for White Oak Swamp, Henrico County, Virginia	9/20/2004	7/31/2008	White Oak Swamp	E. coli	Recreation	Escherichia coli	1.58E+12	cfu/year	
Bacterial Total Maximum Daily Load Development for the James River and Tributaries - City of Richmond	11/4/2010	6/29/2012	Almond Creek	E. coli	Recreation	Escherichia coli	1.18E+12	cfu/year	VDOT MS4 (VAR040115)
			Gillies Creek	E. coli	Recreation	Escherichia coli	5.78E+11	cfu/year	VDOT MS4 (VAR040115)
			James River (lower) Impaired	E. coli	Recreation	Escherichia coli	3.50E+13	cfu/year	VDOT MS4 (VAR040115)
			James River (tidal)	E. coli	Recreation	Escherichia coli	1.36E+12	cfu/year	VDOT MS4 (VAR040115)
			James River (upper) delisted	E. coli	Recreation	Escherichia coli	5.69E+12	cfu/year	VDOT MS4 (VAR040115)
			James River (lower) delisted	E. coli	Recreation	Escherichia coli	4.74E+13	cfu/year	VDOT MS4 (VAR040115)
Chesapeake Bay TMDL	12/29/2010		Chickahominy River oligohaline estuary (CHK0H)	Submerged Aquatic Vegetation / Dissolved Oxygen	Aquatic Life Use	Total Nitrogen	25,385.25	lbs/year	All regulated stormwater permits
						Total Phosphorus	13,337.88	lbs/year	All regulated stormwater permits
						Total Suspended Solids	522,195.38	lbs/year	All regulated stormwater permits
			James River upper tidal freshwater estuary (JMSTF2)	Submerged Aquatic Vegetation / Dissolved Oxygen	Aquatic Life Use	Total Nitrogen	150,930.68	lbs/year	All regulated stormwater permits
						Total Phosphorus	20,531.88	lbs/year	All regulated stormwater permits
						Total Suspended Solids	4,435,348.87	lbs/year	All regulated stormwater permits
Total Maximum Daily Load Development for the Upham Brook Watershed	7/24/2008	4/28/2009	Upham Brook and Tributaries	Fecal coliform	Recreation	Escherichia coli	-	-	WLA to be addressed in TMDL IP

Attachment 4 - NPDES Rating Worksheet

NPDES PERMIT RATING WORK SHEET

☒ Regular Addition
☐ DiscretionaryAddition
☐ Score change, but no status change
☐ Deletion

NPDES NO. VA0088617
Facility Name: County of Henrico MS4
City: Henrico County

Receiving Water:

Allens Branch (JM17)	Bottoms Bridge Creek (J)	Almond Creek (JL01)
Merediths Branch (J)	White Oak Swamp (JL21)	Mill Creek (JL27
Holiday Branch (J)	Little Tuckahoe Creek (J)	Cornelius Creek
Greenwood Branch (J)	Harding Branch (J)	Roundabout Creek
Greenwood Creek (J)	Copperas Creek (J)	Bailey Creek (JL07)
Turners Run (J)	Deep Run (J)	Curles Neck Farm Tributary (JL06)
Chamberlayne Brook (J)	Georges Branch (J)	Turkey Island Creek (JL05)
Upham Brook (JL18),	Tuckahoe Creek (JM84)	Chickahominy River ()
Horse Swamp Creek (J)	Westham Creek (JM86)	James River (J)
Tuckers Branch (J)	Little Westham Creek (JM86)	Kanawha Canal (J)
Broadwater Creek (J)	Shockoe Creek (J)	
Boer Swamp (J)	Gillies Creek (J)	

Reach Number: _____

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?
1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate
☐ YES; score is 600 (stop here) ☒ NO (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?
☒ YES; score is 700 (stop here)
☐ NO (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: 9199 Primary SIC Code: _____ Other SIC Codes:
Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
☐ No Process Waste Streams	0	0	☐ 3.	3	15	☐ 7.	7	35
☐ 1.	1	5	☐ 4.	4	20	☐ 8.	8	40
☐ 2.	2	10	☐ 5.	5	25	☐ 9.	9	45
			☐ 6.	6	30	☐ 10.	10	50

Code Number Checked: ____

Total Points Factor 1: NA

FACTOR 2: Flow/Stream Flow Volume (*Complete either Section A or Section B; check only one)*

Section A ☐ Wastewater Flow Only Considered

Wastewater Type (See Instructions)		Code	Points
Type I: Flow < 5 MGD	☐	11	0
Flow 5 to 10 MGD	☐	12	10
Flow > 10 to 50 MGD	☐	13	20
Flow > 50 MGD	☐	14	30
Type II: Flow < 1 MGD	☐	21	10
Flow 1 to 5 MGD	☐	22	20
Flow > 5 to 10 MGD	☐	23	30
Flow > 10 MGD	☐	24	50
Type III: Flow < 1 MGD	☐	31	0
Flow 1 to 5 MGD	☐	32	10
Flow > 5 to 10 MGD	☐	33	20
Flow > 10 MGD	☐	34	30

Section B ☐ Wastewater and Stream Flow Considered

Wastewater Type (See Instructions)	Percent of instream Wastewater Concentration at Receiving Stream Low Flow		Code	Points
Type I/III:	< 10 %	☐	41	0
	10 % to < 50 %	☐	42	10
	> 50 %	☐	43	20
Type II:	< 10 %	☐	51	0
	10 % to <50 %	☐	52	20
	> 50 %	☐	53	30

Code Checked from Section A or B: _____
Total Points Factor 2: NA

FACTOR 3: Conventional Pollutants
(only when limited by the permit)

A. Oxygen Demanding Pollutant: (check one) ☐ BOD ☐ COD ☐ Other: _____

			Code	*Points*
Permit Limits: (check one)	☐	< 100 lbs/day	1	0
	☐	100 to 1000 lbs/day	2	5
	☐	> 1000 to 3000 lbs/day	3	15
	☐	> 3000 lbs/day	4	20

Code Checked: _____

Points Scored: _____

B. Total Suspended Solids (TSS)

Permit Limits: (check one)	☐	< 100 lbs/day	1	0
	☐	100 to 1000 lbs/day	2	5
	☐	> 1000 to 5000 lbs/day	3	15
	☐	> 5000 lbs/day	4	20

Code Checked: _____

Points Scored: _____

C. Nitrogen Pollutant: (check one) ☐ Ammonia ☐ Other: _____

		Nitrogen Equivalent	*Code*	*Points*
Permit Limits: (check one)	☐	< 300 lbs/day	1	0
	☐	300 to 1000 lbs/day	2	5
	☐	> 1000 to 3000 lbs/day	3	15
	☐	> 3000 lbs/day	4	20

Code Checked: _____

Points Scored _____

Total Points Factor 3: NA

FACTOR 4: Public Health Impact

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

☐ YES (If yes, check toxicity potential number below)

☒ NO (If no, go to Factor 5)

Determine the *human health* toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column ☐ check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
☐ No Process Waste Streams	0	0	☐ 3.	3	0	☐ 7.	7	15
☐ 1.	1	0	☐ 4.	4	0	☐ 8.	8	20
☐ 2.	2	0	☐ 5.	5	5	☐ 9.	9	25
			☐ 6.	6	10	☐ 10.	10	30

Code Number Checked: _____

Total Points Factor 4: NA

FACTOR 5: Water Quality Factors

A. Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge:

		Code	Points
☐	Yes	1	10
☐	No	2	0

B. Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?

		Code	Points
☐	Yes	1	0
☐	No	2	5

C. Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?

		Code	Points
☐	Yes	1	10
☐	No	2	0

Code Number Checked: A ____ B ____ C ____

Points Factor 5: A ____ + B ____ + C ____ = __NA__ TOTAL

FACTOR 6: Proximity to Near Coastal Waters

A. Base Score: Enter flow code here (from Factor 2): ____ *Enter the multiplication factor that corresponds to the flow code:* ____

Check appropriate facility HPRI Code (from PCS):

	HPRI#	*Code*	*HPRI Score*
☐	1	1	20
☐	2	2	0
☐	3	3	30
☐	4	4	0
☐	5	5	20

HPRI code checked: ____

Flow Code	*Multiplication Factor*
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

Base Score: (HPRI Score) _____ X (Multiplication Factor) ____ = ____ (TOTAL POINTS)

B. Additional Points □ NEP Program
For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points
☐ Yes	1	10
☐ No	2	0

C. Additional Points □ Great Lakes Area of Concern
For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see Instructions)

	Code	Points
☐ Yes	1	10
☐ No	2	0

Code Number Checked: A _____ B _____ C _____

Points Factor 6: A _____ + B _____ + C _____ = __NA__ TOTAL

NPDES NO: VA0088617

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	NA
2	Flows/Streamflow Volume	NA
3	Conventional Pollutants	NA
4	Public Health Impacts	NA
5	Water Quality Factors	NA
6	Proximity to Near Coastal Waters	NA
	TOTAL (Factors 1 through 6)	700

S1. Is the total score equal to or greater than 80? ☒ Yes (Facility is a major) ☐ No

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☐ No

☐ Yes (Add 500 points to the above score and provide reason below:

Reason:

NEW SCORE: 700

OLD SCORE: NA

Melinda Woodruff
Permit Reviewer's Name

(757) 518-2174
Phone Number

September 18, 2014
Date

Attachment 5 – Public Comments and Response

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY
Office of VPDES Permits

629 E. Main Street **Richmond, Virginia 23219** **804-698-4000**

TO: File
FROM: Jaime L. Bauer, MS4 Permits Team Leader
DATE: March 19, 2015
SUBJECT: Public comments and DEQ response for the Henrico County MS4 Draft VPDES Permit (VA0088617)

PUBLIC COMMENT PERIOD

The draft permit was public noticed in the *Richmond Times-Dispatch* on February 2, 2015 and February 9, 2015. The comment period began on February 2, 2015, lasted 30 days, and closed on March 4, 2015.

During the comment period, 85 sets of comments were received from the following:

- 2 non-profit environmental organizations
- 82 individual citizens
- 1 state agency

Please note that there were no requests for a public hearing on the draft permit.

A list of commenters is attached. Below is a summary of the comments received, the commenter, and DEQ's response to each issue.

PUBLIC COMMENT AND DEQ RESPONSE

Comment 1: Require the permit's intermediate benchmarks and milestones be made mandatory to ensure the county achieves progress in reducing polluted runoff. Revise Part I.D.1.b.(1)(f) of the permit to state that the schedule to achieve reductions "*shall* include annual, *enforceable* benchmarks to demonstrate" progress.

Commenters: CBF Citizen Alert, Chesapeake Bay Foundation

DEQ Response: Each year, the permittee is required to submit to DEQ for review and approval an annual report that documents the strategies and best management practices employed in the previous reporting period to demonstrate implementation of the MS4 Program and compliance with the MS4 permit. Upon approval of the TMDL Action Plan, the permittee is required to include information in the annual report regarding the implementation of the TMDL Action Plan and required pollutant reductions including the strategies, best management practices, and retrofit projects that were implemented during the reporting year to address TMDL WLAs. The permittee is also required to include in each annual report the planned measures for continued control and reduction of pollutants of concern. As part of the TMDL Action Plan, the permittee is required to include a schedule by which the plan will be implemented and annual

reporting by the permittee establishes a mechanism by which pollutant reductions can be tracked. Additionally, the permittee is required to make each annual report available for public review.

No change to the draft permit is necessary in response to this comment.

Comment 2: Accelerate the schedule for key pollution reduction projects like retrofits, system inspection and maintenance, street sweepings, and tree plantings

Commenters: CBF Citizen Alert, Chesapeake Bay Foundation

DEQ Response: Pollution reduction strategies are required to be implemented over the term of the permit and have varying schedules depending on the type of control measure. These schedules have been established based on best professional judgment of staff based on planning and implementation measures that are involved for each strategy.

No change to the draft permit is necessary in response to this comment.

Comment 3: Strengthen the permit's monitoring requirements to obtain sufficient data, including incorporating discharge measurements, to assess whether the permit is working effectively in reducing pollution and to ensure any necessary modifications are made. The permit should specify the location of the stream monitoring sites or outline factors to be considered by the permittee when selecting sites. Biological monitoring is insufficient because it does not incorporate the permits general monitoring protocols in Part II.A. Additionally, the permit does not specify intended purpose of biological monitoring (for Rapid Bioassessment). It is requested that the permit be revised to match Arlington biological condition that specifies the protocol, lists parameters to be assessed, requires sampling events two (2) times per year during two (2) different seasons, and lists the sites for biological monitoring.

Commenters: CBF Citizen Alert, Chesapeake Bay Foundation

DEQ Response: The 2002 permit required the permittee to monitor only two watersheds for bioassessment and various pollutants to determine the effectiveness of the stormwater management plan. The draft permit strengthens previous in-stream requirements by increasing the number of monitored sites to a minimum of five (5) sites once every two months in order to assess ambient conditions and a minimum of five (5) sites for bi-annual (one per 6 months) biological monitoring. Requiring a minimum of 15 sampling events at each site for in-stream monitoring will provide enough data to perform statistical analyses to determine if the MS4 Program Plan is effective in reducing pollutant concentrations as well as determine areas where additional focus may be needed. DEQ staff believes that the permittee best knows their watershed in terms of establishing a monitoring network and identifying specific areas that may be problematic. Therefore, it is appropriate to allow the permittee to flexibility to establish a monitoring program that meets the minimum permit requirements based on the specific locality situation.

The draft permit requires that unless otherwise stated in the permit, the monitoring must be performed in accordance with federal monitoring procedures as listed in 40 CFR Part 136 as stated in Part II.A of the permit. Monitoring protocols are established in the permittee's MS4 Program Plan which is reviewed and approved by DEQ, including the sampling locations. Updates to monitoring protocols must be approved by DEQ prior to modifications being made by the permittee in accordance with the MS4 Program Plan modification procedures.

The draft permit has been update to clarify that the monitoring period for the biological monitoring requirement.

Comment 4: "Legislate that ALL new purchases in Virginia be electrically powered."

Commenters: CBF Citizen Alert

DEQ Response: Thank you for your comment, however, this issue is not pertinent to water quality issues or the reissuance of this draft permit or the MS4 Program.

No change to the draft permit is necessary in response to this comment.

Comment 5: Encourage residents to: keep sink drains free of debris and fats; keep leaves out of street gutters; leave leaf debris and mulch on personal property; stop using chemical fertilizers; use safer pesticides; stop spraying for MOSQUITO; and recycle more plastic products with numbers higher than 1 and 2.

Commenters: CBF Citizen Alert

DEQ Response: Thank you for your comments, however, regulations of sink drains, use of chemical fertilizers, mosquito control, and recycling issues at the residential level are not applicable under the MS4 Program permit issued by the Department. Please note that the permittee is required to maintain and implement the legal authority to control the discharge of spills and dumping to the MS4 (Part I.A.3 of the draft permit). This includes leaf litter and grass clippings.

No change to the draft permit is necessary in response to this comment.

Comment 6: Revise Part I.D.1.d(5) of the permit to require the draft action plan that is submitted with the reissuance package address plans to reduce pollutant loads by "an additionally 19 times the required reductions in loading rates…" such that 100% of the reduction goal is met by 2025 rather than 7 times the required reduction rates.

Commenters: Chesapeake Bay Foundation

DEQ Response: In the Phase I and II Watershed Implementation Plans (WIP) and the Chesapeake Bay Total Maximum Daily Load (TMDL) report, the Commonwealth of Virginia and EPA committed to using a phased approach to achieve reductions in loadings of POC from the urban stormwater sector. Specifically, MS4 permittees are afforded three full five year permit cycles in these regulatory documents by which 100% of the reductions must be achieved. Beginning with the first reissuance of the permit after the TMDL and WIP are approved, permittees must reduce loadings from POC by 5% and begin planning for the additional required reductions.

Due to multiple delays in permit reissuance, three full permit terms now extend beyond the Chesapeake Bay Program partnership's 2025 goal for implementation of all controls necessary to meet the TMDL. Under the Phase I and II WIPs, Virginia has recognized the right to adjust this plan and take different approaches to meet the 2025 goal. Virginia is committed to a phased approach that allows multiple permit terms for MS4 permittees to fully implement nutrient and sediment reductions necessary to meet the Chesapeake Bay TMDL wasteload allocations (WLAs). Virginia will adjust its commitments, if necessary, as part of its Phase III WIP to ensure that practices are in place by 2025 that are necessary to meet water quality standards in the Chesapeake Bay and its tidal tributaries. Any changes in reduction requirements as part of the Phase III WIP will be incorporated in future reissuances of the permit as necessary.

No change to the draft permit is necessary in response to this comment.

Comment 7: Revise Part I.A.2 of the permit to state that the Department has determined the permittee's MS4 Program to reduce pollutants to the maximum extent practicable if the program is "modified by an approved, compliance TMDL Action Plan…and if fully implemented" to better address compliance with the Maximum Extent Practicable standard.

Commenters: Chesapeake Bay Foundation

DEQ Response: The Department expects the permittee to fully comply with the terms and conditions of the permit. Compliance with implementing the BMPs required by the permit, following an approved MS4 Program Plan, and implementing the TMDL Action Plans are appropriate means by which the Department has determined the permittee's program meets the MEP standard and does not cause or contribute to a water quality violation

No change to the draft permit is necessary in response to this comment.

Comment 8: Revise Part I.D.1 of the permit to state that if an approved, compliant TMDL Action Plan is "fully implemented" then the permit will be "consistent with the Chesapeake Bay TMDL and Phase I and II WIPs to meet Level 2 (L2) scoping run for existing developed land as it represents an implementation of 5% of L2 as specified in the 2010 Phase I WIP."

Commenters: Chesapeake Bay Foundation

DEQ Response: The L2 scoping run for existing developed lands established the reductions in loading required to meet the Bay TMDL water quality goals. Additionally, as previously mentioned MS4 permittees were afforded multiple permit cycles to implement reductions on existing lands in the Phase I and II WIPs. Therefore, the permit is consistent with the TMDL and WIPs as written with the required reductions in loadings over multiple permit cycles.

No change to the draft permit is necessary in response to this comment.

Comment 9: **Require the TMDL Action Plan be incorporated into the permit and enforceable under the terms of the permit.**

Commenter: Chesapeake Bay Foundation

DEQ Response: Part I.A.6 of the draft permit specifically states that the Department recognizes the MS4 Program Plan may be considered one document but actually consists of separate documents including TMDL Action Plans. The condition also states that the MS4 Program Plan is an enforceable part of the permit. Additionally, Part I.D.1.b)4) and Part I.D.2.a)2) specifically states that the Chesapeake Bay TMDL Action Plan and TMDL Action Plans other than the Chesapeake Bay TMDL, respectively are effective and enforceable upon review by the Department.

No change to the draft permit is necessary in response to this comment.

Comment 10: Revise permit to require the TMDL Action Plans be incorporated through the major modification permitting process to allow for public participation on the TMDL Action Plan process.

Commenters: Chesapeake Bay Foundation

DEQ Response: Adoption of TMDL Action Plans is not a modification to the terms of the permit. The TMDL Action Plans are incorporated by reference to the permit, and approved plans are enforceable under the terms of the permit. The permit requirement is for the permittee to develop and implement the

Action Plans as specified. The agency routinely requires permittees to develop plans that reduce pollutants or demonstrate compliance with regulations as an action outside of the permit issuance process. This provides the necessary time and flexibility for these plans to be developed or revised if necessary while still providing the agency the necessary review and approval authority.

No change to the draft permit is necessary in response to this comment.

Comment 11: Revise Part I.B.2.(m)(2) of the permit to include a schedule by which the permittee must work with VDOT to identify any uncertainty on ownership or location of MS4 components that are physically interconnected. Revise Part I.B.2.(m)(3) of the permit to require permittee to implement the means and methods to reduce pollutant loadings from those areas that are located in the permittee's jurisdiction but drain to the VDOT MS4.

Commenter: Chesapeake Bay Foundation

DEQ Response: The MS4 program and associated requirements apply to areas served by the MS4 owned or operated by the permittee. The draft permit requires the permittee to reduce the loads of sediment and nutrients from lands that drain to the permittee's MS4. This is consistent with the pollutant reduction requirements of the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems. DEQ staff believes that for this permit reissuance, reduction requirements are appropriately assigned based on the MS4 service area. In addition, the permit requires the permittee to coordinate with VDOT on areas of interconnectivity and overlapping jurisdiction. The permittee is required to submit a Chesapeake Bay TMDL Action Plan 24 months after the effective date of this permit to address pollutant reductions from their MS4. The Action Plan requires the permittee to account for their regulated acreage; therefore, areas of uncertainty will be delineated in the Action Plan due 24 months after the permit effective date. Additionally, the Action Plan must include identification of those areas within the permittee's municipal boundaries and outside of the VDOT right of way and that drain to the VDOT MS4.

No change to the draft permit is necessary in response to this comment.

Comment 12: Revise permit to require local TMDL Action Plans include a compliance plan for meeting water quality standards or WLAs that specifies a definitive end date by which a WLA must be achieved.

Commenter: Chesapeake Bay Foundation

DEQ Response: DEQ recognizes that reducing pollutants in stormwater discharging from an MS4 is best managed through the iterative and adaptive management process that allows the MS4 permittee to most effectively reduce pollutants through the evaluation of stormwater management practices on a regular basis. As such, reduction of pollutants to meet approved TMDL WLA may be performed over multiple permit cycles in support of the iterative approach as long as the permittee demonstrates progress in pollutant reductions is being achieved. The Department has determined this is most economically and environmentally feasible method for MS4s to meet the requirements established by this permit including any TMDL WLAs. The Department's review and approval of annual reports and action plans will ensure that the permittee is appropriately implementing the iterative, adaptive management process to demonstrate progress.

No change to the draft permit is necessary in response to this comment.

Comment 13: Amend permit to require permittee to first provide an analysis to DEQ showing how it will achieve the goals of any eliminated strategy, policy, or BMP.

Commenter: Chesapeake Bay Foundation

DEQ Response: Upon requesting to eliminate or replace BMPs from the MS4 Program Plan, Part I.A.7.a)3) requires the permittee to provide an analysis to DEQ explaining how or why the BMPs being replaced is ineffective or infeasible including how the new BMP will achieve the reductions of the BMP being replaced.

No change to the draft permit is necessary in response to this comment.

Comment 14: Modify permit to state that any document that forms part of the MS4 Program Plan is incorporated by reference.

Commenter: Chesapeake Bay Foundation

DEQ Response: Part I.A.6 explains that while an MS4 Program Plan may be one single document, it may also consist of several documents that are incorporated by reference. In order for a document to be incorporated by reference into the MS4 Program Plan, the permittee must include the document name and latest revision date in the MS4 Program Plan.

No change to the draft permit is necessary in response to this comment.

Comment 15: Revised permit to require accelerated development and implementation of nutrient management plans for County-owned land.

Commenter: Chesapeake Bay Foundation

DEQ Response: The schedule for development and implementation of nutrient management plans for County owned lands is consistent with the requirements in the Chesapeake Bay WIP that requires MS4 operators to implement urban nutrient management plans on all lands owned or operated by the MS4 permittee by the end of the first five year permit cycle.

No change to the draft permit is necessary in response to this comment.

Comment 16: Modify amount of sanitary sewer line inspection per permit cycle from 750,000 linear feet to 30 miles.

Commenter: Chesapeake Bay Foundation

DEQ Response: The permittee is responsible for 1 million linear feet of sanitary sewer. Given the large amount of sanitary pipes and DEQ staff's best professional judgment, it is appropriate to establish a minimum linear feet to be inspected equal to 75% of the total system. The permit also requires the permittee to perform illicit discharge detection, dry and wet weather screening that will supplement the sanitary sewer inspection program to ensure there is no leakage of sanitary waste to the MS4.

No change to the draft permit is necessary in response to this comment.

Comment 17: Revise permit to require wet weather screening plan development in at least five areas during the first 12 months after the permit is effective and implementation of the plan during the second year of the permit term.

Commenter: Chesapeake Bay Foundation

DEQ Response: The permittee is required to establish a wet weather screening program. The purpose of wet weather screening is for the permittee to identify sources of significant pollutant loading to the MS4. Sources of significant pollutant loading may be identified through sampling and non-sampling techniques; therefore, a minimum number of sampling locations is not specified for wet weather screening as it is for in-stream monitoring. The permit requires the permittee to develop and submit a wet weather monitoring program to DEQ no later than 12 months after the permit effective date. Upon review and approval by DEQ, the permittee will be expected to implement the wet weather screening program. Annual reporting will demonstrate the permittee's compliance status with the program.

No change to the draft permit is necessary in response to this comment.

Comment 18: Revise the permit to clarify when the permittee must refer to DEQ any VPDES permitted facilities discharging significant pollutant loadings to the MS4 as determined by a specified number of exceedances of benchmark values demonstrated through VPDES permit monitoring.

Commenter: Chesapeake Bay Foundation

DEQ Response: This permit condition requires the permittee to refer industrial dischargers to DEQ when evidence of significant pollutant loading to the MS4 is found by the permittee. DEQ maintains regulatory authority of VPDES-permitted industrial discharges and receives the periodic discharge monitoring reports for review to determine if a VPDES permitted industrial facility is discharging concentrations or loads greater than established benchmark values. It is the MS4 permittee's responsibility to review the periodic monitoring reports and identify significant pollutant loading to the MS4 by other means.

No change to the draft permit is necessary in response to this comment.

Comment 19: Revise the permit to require that all industrial outfalls discharging to the MS4 be inspected every 3 years.

Commenter: Chesapeake Bay Foundation

DEQ Response: Part I.B.2.h)2) requires the permittee to identify and prioritize inspections of VPDES permitted industrial discharge outfalls and inspect each VPDES permitted industrial outfall once per five years such that all outfalls are inspected during the term of the permit. DEQ staff believes that the outfall inspection frequency implemented in concert with the permittee's illicit discharge and detection program and monitoring program is sufficient to identify and prevent potential discharges to the MS4 that may adversely impact receiving stream water quality.

No change to the draft permit is necessary in response to this comment.

Comment 20: Revise the permit to reconcile conflicting permit requirements regarding public access to the permittee's MS4 Program Plan.

Commenter: Chesapeake Bay Foundation

DEQ Response: It is the intent of DEQ staff to ensure that public access and participation are incorporated and maintained in the permittee's MS4 Program. It was not the intent of staff to word the public access in a way that discourages public access. Part I.A.6 of the draft permit has been revised to require the permittee to make the MS4 Program Plan available on the permittee's website as well as another location that is easily accessible to the public.

The draft permit has been revised as described above.

Comment 21: Technical amendment: Part I.B.2.j)6) should be corrected from Erosion and Sediment Control Act to Stormwater Management Act.

Commenter: Chesapeake Bay Foundation

DEQ Response: Thank you for the comment.

This section of the permit has been corrected.

Comment 22: VDOT submitted comments recognizing the significant amount of cooperation that will be required between the County and VDOT and indicated that communication has already begun between the parties.

Commenter: Virginia Department of Transportation

DEQ Response: Thank you for the commitment.

No change to the draft permit is necessary in response to this comment.

Comment 23: Revise the permit to address Chesapeake Bay Cleanup pollution reduction of 40% pollution reduction by the end of the permit term.

Commenter: James River Association, JRA Citizen Alert

DEQ Response: Please see response to Comment 6 above.

No change to the draft permit is necessary in response to this comment.

Comment 24: Revise permit to include provisions that acknowledge and provide for modifications when new WLAs are approved as part of the Phase III WIP.

Commenter: James River Association, JRA Citizen Alert

DEQ Response: Any changes in reduction requirements as part of the Phase III WIP will be incorporated in future reissuances of the permit as necessary.

No change to the draft permit is necessary in response to this comment.

DEQ STAFF CONTACT INFORMATION

Ms. Jaime Bauer
DEQ Office of VPDES Permits
629 E. Main Street
Richmond, Virginia 23219
Ph: 804-698-4416
Jaime.Bauer@deq.virginia.gov

Attachment 5 - List of Public Commenters

Organization	First Name	Last Name	Suffix	Email	Phone	Street	City	State	Zip
CBF - Alert	Abbi	Brees		aabrees@gmail.com					
CBF - Alert	Jean	Adams		jmarshadams@gmail.com		3440 S. Jefferson Street	Falls Church	VA	22041
CBF - Alert	Robert	Agee		robagee@verizon.net	(703) 768-6624	2436 Windbreak Drive	Alexandria	VA	22306
CBF - Alert	Betty and Richard	Allan	, Jr.	ballan@mindspring.com	(703) 578-7673	3440 S. Jefferson Street, #1128	Falls Church	VA	22041
CBF - Alert	Sud	Banerjee		sudb@netaxs.com	(703) 941-4568	5929 Quantrell Avenue Apt. 302	Alexandria	VA	22312
CBF - Alert	Amy	Bergman		audionics1@gmail.com		6379 Lincolnia Rd.	Alexandria	VA	22312
CBF - Alert	Michael	Bishop		mwbishop@cox.net	(703) 830-4480	5212 Belle Plains Drive	Centreville	VA	20120
CBF - Alert	P.	Boyd		boyd54@erols.com	(703) 256-7403	5501 Atlee Place	Springfield	VA	22151
CBF - Alert	Christopher	Bush		glassman1185@gmail.com	(804) 512-8060	1831 Westhill Road	Richmond	VA	23226
CBF - Alert	Leslie	Calambro		biketrekker1@yahoo.com		1903 Barribee Lane	Henrico	VA	23229
CBF - Alert	Zheng	Chen		xyzhengchen@yahoo.com	(703) 250-2619	9416 Wooded Glen Ave	Burke	VA	22015
CBF - Alert	Joseph	Chudzik		forservice@verizon.net	(703) 541-3123	10916 Harley Road	Lorton	VA	22079
CBF - Alert	Gina	Clune		gclune012@gmail.com		4401 Holborn Avenue	Annandale	VA	22003
CBF - Alert	Christina	Cowan		cowanc1028@earthlink.net	(703) 978-1959	9619 Pierrpont Street	Burke	VA	22015
CBF - Alert	David	Curtis		sabrinacurtis@verizon.net	(703) 827-0273	7501 Lisle Avenue	Falls Church	VA	22043
CBF - Alert	Hope	Cygelman		hopecygelman@aol.com		11611 Chapel Road	Clifton	VA	20124
CBF - Alert	Mandy	DeVine		mandycdevine@gmail.com		6308 Tracey Court	Alexandria	VA	22310
CBF - Alert	Patrick	Devlin	, Sr.	pjdevlinsr@gmail.com	(703) 721-0680	7920 New Orleans Drive	Alexandria	VA	22308
CBF - Alert	Mary	Edwards		merrygardenlady@yahoo.com	(703) 451-5914	5936 Seabright Road	Springfield	VA	22152
CBF - Alert	Jeffrey	Fasceski		jeffdf@gmail.com		5944 Annaberg Place	Burke	VA	22015
CBF - Alert	Irwin	Flashman		irwin.flashman@gmail.com	703-481-1910	1327 Buttermilk Lane	Reston	VA	20190
CBF - Alert	Robert	Forster		bforster5@verizon.net	(703) 278-8762	10695 Paynes Church Drive	Fairfax	VA	22032
CBF - Alert	Hanna	Freij		hannafreij@gmail.com		3917 Kathryn Jean Court	Fairfax	VA	22033
CBF - Alert	Lani	Furbank		lani.furbank@gmail.com	(703) 400-0247	4202 Woolls Place	Annandale	VA	22003
CBF - Alert	Sue Ann	Giacinto		giacinto@verizon.net	(410) 431-7363	9921 Steeple Run Court	Vienna	VA	22181
CBF - Alert	Ken	Gigliello		kg4trees@gmail.com	202-641-8375	14812 Hunting Path Place	Centreville	VA	20120
CBF - Alert	James	Gleason		james.gleason5@verizon.net	(703) 631-5010	5573 Rockpointe Drive	Clifton	VA	20124
CBF - Alert	Roberta	Goldman		rsgoldman13@verizon.net		2130 Greenwich Street	Falls Church	VA	22043
CBF - Alert	Ronald	Goldman		rgoldman41@verizon.net	(703) 241-0642	2130 Greenwich Street	Falls Church	VA	22043
CBF - Alert	Barry	Greenhill		barrygreenhill@comcast.net		11309 Myrtle Lane	Reston	VA	20191
CBF - Alert	Peter	Hart		hartpete7602@gmail.com		7602 Virginia Lane	Falls Church	VA	22043
CBF - Alert	Deborah	Heron		deborah.heron@fairfaxcounty.gov		10811 Cross School Road	Reston	VA	20191
CBF - Alert	Francis	Hodsoll		mhodsoll@verizon.net	(703) 698-0180	2438 Caron Lane	Falls Church	VA	22043
CBF - Alert	Ardell	Hoveskeland		ardell.hoveskeland@verizon.net	(703) 354-6284	5002 Wenruth Place	Annandale	VA	22003
CBF - Alert	Sharon	Irving		sherrirving@hotmail.com	(703) 280-8013	3181 Colchester Brook Lane	Fairfax	VA	22031
CBF - Alert	Kathryn	James		kathrynbkj@aol.com	(703) 280-4457	3726 King Arthur Road	Annandale	VA	22003
CBF - Alert	Anka	Jhangiani		ankajhan@yahoo.com		2071 Golf Course Drive	Reston	VA	20191
CBF - Alert	Pamela	Joslin		pdjoslin@verizon.net	(804) 740-3545	907 Penola Drive	Richmond	VA	23229
CBF - Alert	Eric	King	, USN (Ret.)	ek946@hotmail.com	(703) 507-7901	408 Branch Road SE	Vienna	VA	22180
CBF - Alert	Stephen	Klaus		steve@e-klaus.com	(703) 989-4821	7812 Heritage Drive	Annandale	VA	22003
CBF - Alert	Jan-Pavel	Kovar		janpavelkovar@alumni.bac.edu	(804) 412-5692	1630 Fairfield Green Road	Richmond	VA	23238
CBF - Alert	Kathy	Kozak		kkozak@rcn.com	(804) 968-4167	4505 Sadler Grove Court	Glen Allen	VA	23060
CBF - Alert	Helen	Kyle		hcharlenk@aol.com	(703) 323-8597	4005 Barker Court Apt. 105	Fairfax	VA	22032
CBF - Alert	Robert	Leggett	, Jr.	rnleggett@aol.com	(703) 430-8680	P.O. Box 650	Great Falls	VA	22066
CBF - Alert	Patricia	Liske		paliske@cox.net		2200 Trinidad Street	Falls Church	VA	22043
CBF - Alert	Beverly	Marshall		bfmfisher@aol.com	(804) 514-1408	6816 Glenwood Street	Henrico	VA	23228
CBF - Alert	David	McNiff		DJMcNiff@verizon.net		9018 Brook Ford Road	Burke	VA	22015
CBF - Alert	Archna	Oberoi		anna.oberoi@gmail.com		2947 Espana Court	Fairfax	VA	22031

Attachment 5 - List of Public Commenters

Organization	First Name	Last Name	Suffix	Email	Phone	Street	City	State	Zip
CBF - Alert	Cas	Overton		Casoverton@me.com		2209 Nelson Street	Henrico	VA	23228
CBF - Alert	Gina	Paige		glpaige@mac.com	(804) 747-9221	5305 Linsey Lakes Drive	Glen Allen	VA	23060
CBF - Alert	Glenda	Parker		ggailparker@cox.net		5904 Mount Eagle Drive Apt. #1118	Alexandria	VA	22303
CBF - Alert	Cynthia	Privitera		cynthiaprivitera@yahoo.com	(703) 462-8654	1726 Susquehannock Drive	McLean	VA	22101
CBF - Alert	Carson	Rector	, Jr.	ccr4nd@msn.com		10425 Mountain Glen Parkway	Glen Allen	VA	23060
CBF - Alert	Christopher	Robin		prdcr@animalsalive.net		P.O. Box 12461	Burke	VA	22009
CBF - Alert	Patricia	Rowell	, Ph.D.	patriciarowell@verizon.net	(703) 360-4851	1520 Grassymeade Lane	Alexandria	VA	22308
CBF - Alert	Mark	Santora		dynamo_12601@yahoo.com		5408 Orchard Park Court Apt 613	Glen Allen	VA	23059
CBF - Alert	Tedda	Saunders		teddasaunders@yahoo.com	(804) 285-1469	204 Lakewood Drive	Henrico	VA	23229
CBF - Alert	Robert	Shippee		rsoxbob@gmail.com		13000 Trinity Court	Richmond	VA	23233
CBF - Alert	David	Slater		dslater21@gmail.com	(703) 469-3787	727 N. Ivy Street	Arlington	VA	22201
CBF - Alert	Barbara	Slinker		bslinker@verizon.net	(703) 960-2597	2701 Farnsworth Drive	Alexandria	VA	22303
CBF - Alert	Melisande	Smith		melisande.smith@gmail.com		3376 Lakeside View Drive	Falls Church	VA	22041
CBF - Alert	Peter	Spain		pspain@verizon.net	(703) 255-9791	2108 Sheriff Court	Vienna	VA	22181
CBF - Alert	Jeanette	Stewart		inti@mindspring.com	(703) 204-0841	2909 Charing Cross Road	Falls Church	VA	22042
CBF - Alert	Jan	Taylor		janmact@comcast.net		4841 Garden Spring Lane Apt. #103	Glen Allen	VA	23059
CBF - Alert	Norman	Thacker		nthacker@vcu.org	(804) 737-0273	304 Early Avenue	Sandston	VA	23150
CBF - Alert	Anjuan	Tian		anjuan200@yahoo.com			Annadale	VA	22003
CBF - Alert	Jill	Tillotson		pear5193@gmail.com		2016 Oakwood Lane	Henrico	VA	23228
CBF - Alert	Lee	Waggoner	, Jr.	lwaggoner@disa.org	(410) 228-8355	10009 Commonwealth Blvd.	Fairfax	VA	22032
CBF - Alert	Jean	Washburn		jeanwash843@gmail.com		843 Fair Port Circle	Glen Allen	VA	23060
CBF - Alert	Sonja	Wilder		sonjaw4@yahoo.com	(703) 856-3555	13615 Weinstein Court	Centreville	VA	20120
CBF - Alert	Jonathan	Woods		jswoodsart@gmail.com		8734 Center Road	Springfield	VA	22152
CBF - Alert	Roseann	Xytakis		r.e.xytakis@juno.com		12001 Bowerton Road	Richmond	VA	23233
CBF - Alert	Xiaoyu	Zhang		Xiaoyu89@hotmail.com		Sugarbush court	Annandale	VA	22003
CBF - Alert	Ying	Zhao		yzhao12@yahoo.com		7102 Sea Cliff Rd	McLean	VA	22101
Chesapeake Bay Foundation	Margaret (Peggy)	Sanner		PSanner@cbf.org	(804) 780-1392	1108 E Main Street Suite 1600	Richmond	VA	23219
James River Association	Adrienne	Kotula		akotula@jrava.org	(804) 788-8811	4833 Old Main Street	Richmond	VA	23231
JRA Action Alert	Bland	Goddin		bsgoddin@gmail.com		1611 Dotson Road	Richmond	VA	23231
JRA Action Alert	Carrie	Hatcher		chatcher@vt.edu		251 Rockets Way #406	Richmond	VA	23231
JRA Action Alert	Charlie	Connell		charlie@punchrva.com		11112 Riverchase Drive	Henrico	VA	23233
JRA Action Alert	Michael	Harris		gcmh0341@gmail.com		9305 Venetian Way	Henrico	VA	23229
JRA Action Alert	None	None		gradykins@yahoo.com		535 Caroline Avenue	Charlottesville	VA	22902
JRA Action Alert	Paula	Madigan		paulabill1@verizon.net		1508 Edenburry Drive	Henrico	VA	23238
JRA Action Alert	Rebecca	Gordon		siskel14@hotmail.com		6109 Ellis Avenue	Henrico	VA	23228
JRA Action Alert	Sao	Berkowitz		sberkowitzcrna@versizon.net		6902 Park Avenue	Richmond	VA	23226
VDOT	Roy	Mills		roy.mills@vdot.virginia.gov	(804) 786-9013	1401 E. Broad Street	Richmond	VA	23219

Attachment 6 – Permit Change Table

Changes from the Comment Period Draft Permit dated 2/2/2015 to final proposed permit.

General revisions throughout permit:

Change	Reason for Change
Regulatory citations corrected and formatted appropriately.	
Annual report references in the Specific Reporting Requirements section of the special conditions revised to specify the annual report due dates.	The permittee is responsible for developing, updating, and submitting several different documents with annual reports. Specifying which annual report clarifies the reporting requirement.
References to "Department of Environmental Quality" or "DEQ" revised to "Department."	**"**Department" defined in Part I.F Definitions section.
References to "county" revised to "permittee."	More appropriate terminology.
References to "MS4 Program" revised to "MS4 Program Plan."	Revised to correct word omission.

Condition Number	Special Condition Changed	Change	Reason for Change
Part I.A.6	MS4 Program Plan	Revised: The most recent MS4 Program Plan shall be posted on the permittee's website, ~~or~~ and provided in another location easily accessible to the public.	Revised in response to public comments received.
Part I.B.2.g)1)	Industrial & High Risk Runoff Specific Reporting Requirement	Revised: Each annual report shall include a report on implementation of the inspection schedule and include a list of the facilities and/or facility outfalls inspected during the reporting period~~.~~	Correct typo.
Part I.B.2.h)2)(a)(3)(i)	Stormwater Infrastructure Management	Revised: No later than 12-months after the effective date of the permit, the permittee shall develop draft procedures and policies that are designed to ensure that inspection and maintenance of privately maintained SWM facilities without maintenance agreements are being conducted.	Revised for clarity.
Part I.B.2.i)2)(c)	County Facilities	Revised: under Part I.B.2.i)2)(~~a~~b)	Correct typo.
Part I.B.2.j)1)(c)	Public Education/ Participation	Revised: Develop an outreach program ~~with~~ for public and private golf courses located within Henrico County that discharge to the permittee's MS4 that ~~would encourages~~ encourage implementation of integrated management practice (IMP) plans and techniques to reduce runoff of fertilizer and pesticides	Revised for clarity.
Part I.B.2.k)6)	Training	Revised: The permittee shall have a program to ensure that the applicable County employees obtain the appropriate	Correct typo.

Changes from the Comment Period Draft Permit dated 2/2/2015 to final proposed permit.

Condition Number	Special Condition Changed	Change	Reason for Change
		certifications as required under the Virginia ~~Erosion and Sediment control~~ Stormwater Management Act and its attendant regulations to implement the modified stormwater management design criteria	
Part I.B.2.k)8)		Revised: The appropriate emergency response employees shall have training in spill response. A summary of the training and/or certification program provided to emergency response employees shall be included in the first annual report	Revised for clarity.
Part I.C.1.b)	Biological Monitoring	Revised: Monitoring shall be conducted twice per year with one sample collected between July 1st and December 31st and one sample collected between January 1st and June 30th each year at each selected stream site.	Revised in response to public comments received.
Part I.C.1.c)	Biological Monitoring	Revised: The permittee shall use a biological stream monitoring approach based on the "USEPA's Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers" or other method approved by the Department, and shall include an assessment of the benthic macroinvertebrate community and habitat assessment	Revised in response to public comments received.
Part I.E.1	Annual Reporting	Revised to include table with Annual Reporting period and corresponding Annual Report Due Date.	Revised for clarity.
Part I.E.3	Annual Reporting	Revised: A summary of the implementation of each of the components established under Part I.B. and an evaluation of the effectiveness of each component. Additionally, the annual report shall include a summary of progress toward development of new MS4 Program components developed in accordance with the due dates as specified in the permit. The permittee should attempt to limit any component's narrative summary to no longer than two-pages plus any necessary tables and figures	Revised to clarify reporting expectation for programmatic requirements that are under development.